



CAPSTONE

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Background – Introduction

Forefront of Academia

This capstone project will be discussing a cutting edge, brand new, financial savings app powered by AI which aims to be integrated into college and university apps across Canada. The researcher will demonstrate authority and innovation in relation to how this app will disrupt conventional approaches to managing student financial issues. The researcher has over ten years' experience in academics and dealing with student services. The researcher is both an academic and subject matter expert in the issues faced by students across Canada and Australia. The researcher will tie in current practices and highlight the need for a new product which will shatter the current way of operating in student financial services. Savver.AI aims to disrupt the way universities and students view personal finances.

The University of Alberta's Graduate Student Association (GSA) has a strategic work plan with both short-term and long-term goals. These goals have been discussed in earlier papers, the aim of this research paper is to bring in a new and disruptive technology that is in line with the GSA's short-term and long-term deliverables. This paper will provide a showcase of how this new and innovative technology aligns with the Growth, Advocacy and Reimagination strategies listed in the strategic work plan.

In the fast-paced world of technology, universities and their departments often find themselves lagging behind, struggling to keep pace with swift advancements. This gap is caused by several factors, including infrastructural challenges, financial limitations, policy barriers, and the inherent apathy within large academic institutions. Most major Canadian institutions are slow to adopt technology at times leaving them behind Europe and Asia. Universities do not have the means to create a technological solution fast enough to solve the current problems faced by students.

Universities and departments tend to work on thin margins generally relying on donors or pilot programs to bring new technology to their departments. Financial limitations further exacerbate the issue. Upgrading technological infrastructure and investing in new tools require substantial capital, which many universities, especially those in emerging markets, struggle to find. A large barrier of infrastructure, cost, and policy impedes digital adoption in many developing countries. The University of Alberta (UofA), like many large post-secondary institutions, faces extensive financial challenges when it comes to adopting new technology. The costs associated with upgrading infrastructure, applying new digital tools, and maintaining cybersecurity measures can be prohibitive. These cost burdens slow down adoption and contribute to universities lagging in technological advancements.

According to Smith and Brown (2022), "Universities face ongoing costs in keeping their digital systems up to date, making it difficult to allocate funds for new technologies while maintaining existing ones." A study by Jones (2023) found that over 60% of university IT budgets are spent on maintaining existing systems, leaving little room for innovation. As a result, institutions like the UofA are forced to delay the adoption of innovative technologies, relying instead on incremental updates rather than complete overhauls. The University of Alberta's 2023 financial report stated the institution spent over \$50 million on IT services and digital infrastructure, a cost that has grown steadily over the past decade (University of Alberta, 2023). These financial liabilities hold up the adoption of innovative products and technologies such as AI-driven learning platforms, virtual reality in education, and cloud-based research tools. Without private-sector partnerships, or more efficient cost-management strategies, universities will continue to struggle to keep up with rapid technological advancements.

Innovation and tech disruption

The Historical Context

Technological disruption translates to the meaningful changes of how industries and people function. This is achieved through innovative technological changes that make existing methods or practices obsolete or even further, change the status quo. Artificial Intelligence (AI) is at the frontier of this disruption, inspiring various sectors into early adoption by introducing advancing capabilities that challenge traditional methods. AI's emergence as a general-purpose technology counterparts older technology, such as the internet and books, both of which essentially altered how we learn about money and societies trade. Brynjolfsson et al. (2018) emphasize that AI is expected to "fundamentally change the economy," underlining its transformative potential. Savver.Ai will fundamentally change the relationship between students and spending, this app fits the core definition of a tech disrupter.

AI has been aggressively disruptive to the financial technology (FinTech) sector, developing better efficiency, greater cyber security and the overall customer experience. AI-powered algorithms are now extensively used in fraud detection, automated stock trading, and personalized financial services. According to Chen et al. (2023), AI has transformed financial services by enabling more accurate risk analysis, improving fraud detection, and enhancing customer interactions through chatbots and artificial advisors. AI-driven fraud detection systems analyze transaction patterns in real-time to flag suspicious activities, reducing financial crimes. Additionally, technology now has artificial advisors like those

offered by companies such as Wealthsimple and the Royal Bank of Canada, who provide automated financial planning and making investment management more effortlessly accessible and cost-effective. The integration of AI in FinTech continues to grow farther and wider. This tech is ensuring that financial institutions can provide better, faster, and safer services to customers while reducing administrative operational costs.

Additional to this sector, you can find AI in healthcare, AI enhances surgical skills, diagnostic accuracy and treatment personalization. For instance, machine learning algorithms analyze vast datasets to identify disease patterns, leading to early detection and improved patient outcomes. A study in Electronics highlights that AI has "impacted numerous sectors, such as healthcare (medicine), business, agriculture, education, and urban development," illustrating its broad applicability. Surgical interventions are being performed with the aid of robotics and AI, the University of Alberta for example, has several projects aimed at incorporating AI into the field of medicine.

The business sector is undergoing disruption through AI-driven automation and data analysis on a daily basis. This rapid change is helping companies leverage AI to optimize operations, predict market trends, and enhance customer experiences. A research paper on SSRN summaries that AI "has emerged as a disruptive technology that is transforming the way businesses operate," it does explain and identify both opportunities and challenges in its adoption. AI companies offer a broad range of products for almost every size and type of business in 2025 such Otter.AI which take minutes and recordings during meetings eliminating the need for a staff member to do this work in a meeting.

Transportation is another area undergoing disruption due to AI advances. The development of autonomous driving vehicles, powered by AI systems capable of real-time decision-making, promises to transform how people and goods move. This shift could lead to safer roads and more efficient logistics, though it also raises regulatory and ethical considerations. An example of this is the "Waymo" driverless taxi which is controlled primarily by AI algorithms and can be found around the city of San Francisco. This technology offers a safer more reliable method of transport for commuters. Furthermore, car companies such as BYD or Tesla, offer vehicles that have self-driving features which are powered by AI.

Case Studies

Financial technology (FinTech) solutions have been instrumental in both addressing and disrupting historical financial challenges, particularly in enhancing financial inclusion and streamlining financial services. One case study involved a FinTech lending platform that incorporated machine learning techniques to improve loan screening accuracy processes.

In this case study, the original platform met with trials related to representation bias in loan approvals, which impedes access to loans for families from lower socioeconomic groups. In order to address this issue, researchers developed a “Transformer-based sequential loan screening model”, this was a direct application of AI and Machine Learning. This innovative tactic allowed the AI model to learn from both approved and unapproved loan applications, refining its ability to make better decisions for diverse applicant profiles. The application of this model resulted in a 7.10% improvement in loan screening accuracy and an 8.95% increase in profitability. Even more essentially, it promoted inclusiveness in funding assessments, allowing a broader range of applicants to access loans (Hu et al., 2023). This technology removed biases that are innate to humans and allowed for the application to make more appropriate decisions. AI and FinTech have shown to have developed into a symbiotic relationship in reducing risk, avoid bias and increasing profitability for banks.

In a recent paper, the Harvard Business Insider examines the relationship between JPMorgan and Amazon Web Services (AWS) for an AI collaboration project. JPMorgan Chase, a leading financial institution, wanted to improve its compliance processes through the adoption of AI. The older compliance model and risk assessment procedures were time-consuming and prone to human error, necessitating a more efficient and automated approach. In order to solve these challenges, JPMorgan collaborated with AWS to integrate AI-driven solutions into its processes (Business Insider, 2025). The AI implementation focused on automating compliance checks, drastically refining efficiency, accuracy, and most of all cost savings. AWS's generative AI technologies enabled JPMorgan to process increased terabytes of financial data with augmented precision, reducing the manual workload and errors from the compliance teams. This innovative disruption provided faster and more accurate regulatory reporting, reduced operational costs and a stronger risk management framework (Business Insider, 2025). AI automation is proving to increase proficiency and reduce costs, these two case studies demonstrate that the use of AI is disrupting our approaches to traditional business practices.

Current approaches to the student financial crisis

Authority

Presently students have options for loans and bursary programs to address financial shortfalls at the UofA. The researcher has spent the last 10 years in academia in both Canada and Australia which has led to certain profound observations in solving this problem. The researcher has observed that students generally have not been provided the financial education needed to make the right decisions when it comes to their spending

habits. The researcher believes the problem goes beyond the current issue but feels the root cause is the lack of financial literacy. The researcher currently oversees grants and bursaries for graduate students and has seen a clear problematic pattern of poor financial budgeting attributing to the large number of requests for financial help.

Universities will offer loans, grants and other emergency bursaries for unforeseen circumstances which may surface. The UofA for example spends over \$40 million in scholarships and awards each year to current domestic and international undergraduate students in financial need (*University of Alberta, n.d.*). The researcher argues that this can be seen as a reactive approach to ongoing financial issues for students. These funds could be better spent on upgrading technology, teaching materials and campus facilities.

This model relies heavily on an outdated reactive financial assistance system, distributing lump-sum payments that may not align with students' long term financial challenges. Many students receive funding at the start of the term, which does not account for unexpected mid-semester expenses leading to financial insecurity. Also, emergency funding processes often entail lengthy applications, creating delays that prevent students from receiving timely assistance when faced with urgent financial crunches. The process from applying to receiving funds can be up to six weeks, which tends to lead students into further financial decay. Additionally, ongoing daily living expense issues such as paying rent or buying groceries does not meet the criteria for an emergency bursary.

Another major ongoing cost is the unionized staffing costs associated with managing multiple independent funding programs. Numerous university departments and faculties oversee different awards, leading to duplication of effort, inconsistencies in eligibility criteria, and inefficiencies in fund distribution. This silo approach increases operational costs making financial aid less accessible and needlessly convoluted for students to navigate. There is a great need for a centralized and tech-driven financial support system which could reduce these inefficiencies and improve cost-effectiveness.

Industry Data

Financial stress is a considerable concern amongst Canadian post-secondary students, with various research papers highlighting this growing impact. Approximately 70% of students reported being very or extremely concerned about their financial status, facing challenges such as managing housing expenses, tuition fees, and living paycheck to paycheck from part-time jobs (Wellness McMaster, 2020). These financial problems have led 26% of students to consider dropping out due to financial stresses (Money.ca, 2023).

A recent 2024 survey by TD (Toronto- Dominion) Bank Group highlighted noteworthy financial challenges among Canadian post-secondary students. The survey found that over 65% of students consider themselves financially unstable, with 45% unable to adequately cover basic necessities such as food and housing (TD Bank Group, 2024). Additionally, 61% said they had a desire to learn more about budgeting and financial planning strategies, and 46% of respondents desired to understand savings and investing better, such as retirement plans and savings (TD Bank Group, 2024). Furthermore, 20% of students mainly get financial advice from social media apps such as TikTok, Instagram, and YouTube.

The study also found that 94% of parents provide financial support to their post-secondary children, with 71% stating this support affects their ability to meet their own basic financial needs or afford additional activities (TD Bank Group, 2024). In an earlier 2023 survey, TD Bank Group found that 73% of Canadians believe current post-secondary students face more financial challenges than their parents or grandparents (TD Bank Group, 2023). These findings further support the current need for financial literacy and support systems in colleges and universities to reduce the financial problems faced by Canadian students.

Current AI applications in education

Universities are looking at cost effective ways to adopt AI and FinTech into operations. A new FinTech project gaining traction is cashless campus initiative, where universities are embracing digital payment systems for tuition, bookstore transactions, and other on-campus services. This innovative shift advances transaction efficiency and security, aligning with the preferences of tech-savvy students (Discover Global Network, 2023). Furthermore, another major trend is the upsurge of personalised educational financial solutions, such as flexible payment plans, which allow students to finance their education without requiring large upfront payments (Pryor, 2023). Third party FinTech companies such as TUIO, Paymytuition, and TADS are being incorporated across colleges and universities throughout Canada as a payment solution product. This product captures tuition and fees via payment plans using AI automative payment technologies to help lessen the burden of fees.

ScholarSnapp is an AI-driven platform intended to simplify the scholarship application process for students. According to ScholarSnapp (2024), their essential function is to match students with appropriate scholarships based on a combination of their personal profiles, academic history, extracurricular activities, and financial need using AI. By using machine learning algorithms to match students with related opportunities and automate the application process, it lessens the time, effort, and stress related with student grants or loans. The application benefits both students and scholarship benefactors, ensuring that

more students receive the suitable financial support they need to further their education. Roughly 1.7 million scholarships are awarded annually in the United States, with just one in eight college students getting a scholarship (Search Logistics, 2025). This shows a greater need for products that can perform AI FinTech solutions for students.

Colleges and Universities are looking at AI generated platforms to assist with lesson planning and curriculum planning. Pearson publishing began its movement away from textbooks to more online resources pre-pandemic however this has since been accelerated due to the growing demand for online learning. For example, MagicSchool's Lesson Plan Generator is an AI-powered tool meant to modernise the formation of inclusive and innovative lesson plans, offering a bespoke product to meet specific teaching and learning goals (MagicSchool, 2025). According to MagicSchool they offer a host of AI tools designed to support numerous educational duties, including rubric creation, curriculum development, and AI marking comments (MagicSchool, 2025).

Innovation and Problem Solving – Savver AI powered by Zane Financial and Bright Learning Labs

Understanding Savver on the macro level, the specialized skills and techniques

Savver AI (Savver) is an innovative financial services app designed and aimed at students in colleges and universities (Savver, n.d.). An industry disruptor refers to an innovation that significantly alters or displaces established products, services, or business models within a particular industry (Christensen, 1997). Savver at its core meets the requirements of being a disruptor. The researcher has been part of the core development team for Savver.Ai. This has included providing ongoing insights into the current trends faced by students and completing the research study on financial hardships faced by graduate students. The researcher has brought specialised skills formed in their authority as a leader in academia. The researcher has understood Savver to be an essential tool in solving the financial crises that students are facing.

This app was designed with the primary focus of disrupting the student financial space. The aim of this product is to help younger people who are starting out their lives after high school to make better financial decisions through an app that understands Gen Z and Millennials. The writer of this paper is both the Executive Director of the GSA and has an ownership stake in Bright Learning Labs. Savver is an innovative mobile application developed by Zane Inc., a financial technology company, launched in the United States and

Canada in 2024. Bright Learning Labs is the sole distributor of Savver in North America (Savver, n.d.).

Savver.AI is designed with professional integrity at the forefront, operating under the chief licenses of chartered banks that are members of the Federal Deposit Insurance Corporation (FDIC) and the Canada Deposit Insurance Corporation (CDIC). Savver ensures that user accounts are protected up to \$250,000 each. Intended to be user-friendly, Savver helps students in managing their financial and lifestyle routines systematically with tech. One of its standout features is automated meal planning and grocery list creation, which aims to reduce food costs by 30% and save users up to 40 hours per month. This functionality not only promotes healthier eating habits but also contributes to significant time and monetary savings. Savver utilises encrypted bank APIs to securely access students' financial data without storing sensitive information. These APIs use encryption and authentication protocols from the large Canadian financial institutions to certify privacy and protect against illicit access. By analyzing real-time transaction data, Savver provides tailored financial insights and proactive budgeting recommendations to help students manage their finances effectively.

The researcher is cognisant that most Canadian households usually use about 30% of their income on household items and mainly food, Savver addresses both dietary preferences and food costs. The app offers simple meal planning and develops grocery shopping lists, the app makes cooking at home more convenient and cost-effective, potentially saving users 70% compared to dining out. Additionally, Savver tackles the issue of food waste, which can account for up to 30% of household food purchases, by promoting efficient meal planning and shopping practices.

Apart from food-related savings, Savver offers tools to manage various expenses, including lifestyle costs and mandatory payments. The app predicts upcoming expenses and provides users with actionable strategies to follow, facilitating automatic savings and promoting a sense of financial control. By following to these bespoke plans users can position themselves for better financial management and avoid financial hangup's.

The initial setup of Savver requires users to invest approximately 10 minutes to link their bank accounts, enabling the app to gain a complete view of their financial activities. This integration allows Savver to create precise budgets and find savings opportunities. Savver provides push notifications to students to review and approve these spending recommendations, allowing Savver's AI to manage the rest.

The researcher was involved in pilots which underlined the app's efficiency in enhancing financial understanding and promoting savings. For instance, a student from the University of California, Berkeley, started saving over \$400 by avoiding late fees, attributing this success to Savver's timely alerts about upcoming withdrawals and payments. Similarly, a user from the University of British Columbia praised the app for relieving the stress associated with financial planning through its accurate and user-friendly AI-driven insights. Users at the University of Calgary found themselves savings an upwards of \$300 a month since using the app. In relation to the data security aspect, Savver employs seven layers of data protection and encryption, in addition to data anonymization which hides user data. The app utilizes the Google Cloud Platforms, ensuring that even in the event of a data breach, the end-to-end encryption renders the data unreadable.

The Business Plan (Appendix A)

Why Savver.Ai?

Understanding Savver on a micro level, professional integrity

In 2024-2025 graduate students faced increasing financial pressures, particularly in areas such as tuition, rent, and food costs. This study questionnaire and the review of the data was conducted by the author is this paper. The researcher designed a questionnaire to ensure the data was relevant and provided the most usable data sets. The study had 640 participants which is approximately 8% of the graduate student population at the University of Alberta. This a large sample size and the results can be applied to the entire population of graduate students at the University. According to the National Democratic Institute (n.d.) a sample size of 384 is adequate to achieve a plus or minus 5% margin of error in a population of any size. This suggestion is based on standard statistical formulas and is commonly established in research methodologies.

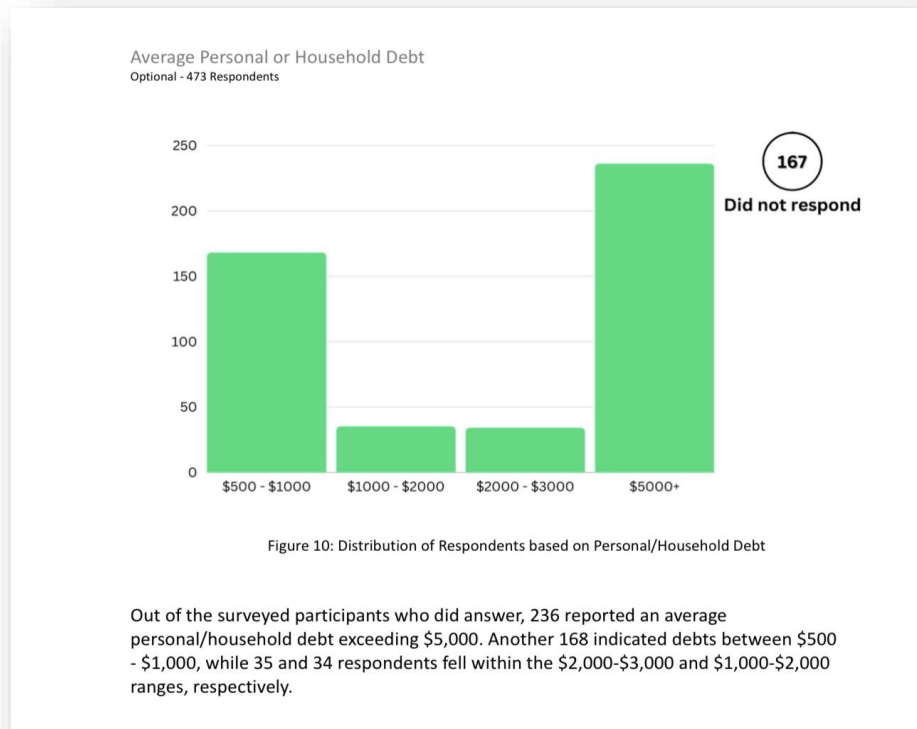


Diagram 1A

This diagram shows the current levels of debt for over 5% of the graduate student population at the University of Alberta. A large number of participants indicated having over \$5,000 worth of personal debt which is not tuition or student loans but is generally made up of credit card debt.

Many students struggle to balance academic demands with financial stability, often relying on food banks and emergency aid programs to get by. “It’s particularly concerning that over 40% of respondents have contemplated leaving their programs due to financial pressures, a figure that is significantly 10% higher than the national average reported in the 2021 National Graduate Student Finance Survey by the Ottawa Science Policy Network.” (Ellamil & Arshad, etl, 2023, p. 2). The integration of Savver into the university’s financial system presents a modern-day solution that benefits both students and the university. This partnership not only generates financial benefits for the institution but also directly enhances student financial well-being, reducing reliance on food banks and alleviating stress related to tuition payments. This initiative creates a sustainable, long-term financial support structure that ensures students have the tools they need to thrive academically without financial distress. This app will be integrated into the student life app which

students use on campus to navigate campus life. This app is already in use by 45,000 students daily on campus and this will be the most seamless integration.

The GSA's 2023 "Understanding Financial Realities" report highlights that over 40% of graduate students have considered dropping out due to financial stress, while over 30% rely on food banks, demonstrating a systemic financial crisis that requires innovative solutions beyond traditional grants and bursaries. The university's reliance on these outdated methods does little to prevent financial hardship, as students must already be struggling before they qualify for aid, leading to increased stress, reliance on food banks, and, in some cases, the abandonment of their studies altogether. Grants are a band aid solution as many students return seeking assistance within a few months as they have not learnt to manage their money. The grant office throws money at a situation however does not train students on how to avoid financial issues in the future.

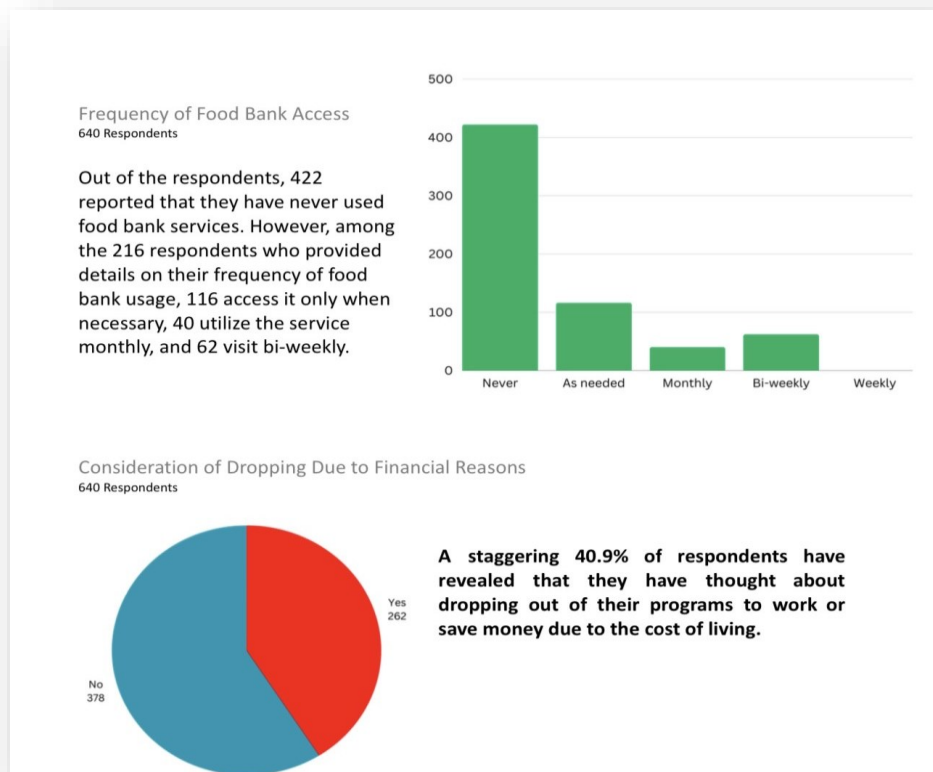


Diagram 1B

This diagram shows the largest dependence of food banks by graduate students, the meal planning feature aims to reduce this use by a large percentage which will in turn unburden these charitable organization.

Market Opportunity

- Students face increasing financial pressures and lack effective financial education tools.
- Traditional financial literacy programs, such as Enriched Academy, require additional studying, whereas Savver provides real-time, actionable insights.
- UofA has over 44,000 students, representing a large market opportunity for an integrated financial wellness solution.

Savver's budgeting features allow students to track and allocate funds automatically. The system identifies areas where students can cut unnecessary spending, reallocating funds toward:

- Tuition payments, reducing reliance on student loans.
- Rent and utilities, ensuring financial stability.
- Emergency savings, protecting students from unexpected costs.

A 2023 study on student financial literacy found that students who use automated budgeting tools save an average of \$100–\$150 per month (Chen et al., 2023). For graduate students, this could mean an additional \$600–\$900 per semester toward tuition or essential expenses.

Many graduate students battle with timing their bill payments, leading to:

- Bank overdraft fees (often \$30–\$45 per transaction).
- Late tuition or rent payments, resulting in penalties.

Savver predicts upcoming withdrawals, sending alerts to ensure students avoid unnecessary financial penalties. A University of British Columbia student using Savver reported saving \$400 per semester in late fees and overdraft costs due to its alerts and budget optimization features.

The most significant advantage of integrating Savver into the university system is the direct financial relief it provides to students. Graduate students often operate on tight budgets, with limited time for part-time work due to rigorous academic and research commitments.

One of Savver's basic functions is its AI-driven meal planning and grocery list generation, which can slash food costs by up to 30%. Between 2019 and 2024, Canada experienced a significant rise in food costs. According to the University of Calgary, the average monthly

cost of groceries increased from \$974 in 2019 to \$1,227 in 2024, marking a sizable rise over the five-year period.

Graduate students often struggle to afford nutritious meals, leading to unhealthy eating habits or reliance on fast food. Savver eliminates unnecessary spending by:

- Suggesting budget-friendly meals based on local grocery prices.
- Creating efficient shopping lists, reducing impulse purchases.
- Minimizing food waste, which accounts for up to 30% of grocery spending
- For a typical student who spends \$300 per month on groceries, a 30% reduction equates to a \$90 monthly saving, or \$540 per semester—far exceeding the \$62.50 university investment.

Revenue Model & Financial Impact

Financial Benefits to the University and the leadership

University leaders are highly focussed on budgets and maintaining student numbers, attrition leads to a drop in tuition which has a flow on effect throughout the entire university's operating system. Savver offers a generous win for the leadership team especially as they gain revenue and retain students. The UofA will gain substantially from incorporating Savver into its financial systems. Savver, unlike other products, share the revenue with the host university. The university has the ability to build the cost of this app into the tuition or non instructional fees portion which covers health and wellbeing. As mentioned earlier, the university is not required to invest any financial or administrative resources into this product.

This app challenges how the university has conventionally approached financial concerns of students whilst earning revenue (Appendix A).

For example, the table below models several scenarios for revenue sharing.

- Students save an average of \$500 per month, translating to \$2,000 per semester.
- Potential total student savings: \$264,000,000 annually.

Price Per Semester	Total Revenue	UofA Revenue
\$62.50	\$2.75M	\$1.1-1.375M
\$87.50	\$3.85M	\$1.54-1.925M
\$112.50	\$4.95M	\$1.98-2.475M
\$137.50	\$6.05M	\$2.42-3.025M

Reduced dependence on Grants and Emergency Bursaries

Universities across Canada allocate millions of dollars a year towards emergency grant programs for students in crisis and unforeseen expenses. By incorporating Savver, the need for emergency assistance decreases, allowing universities to:

- Allocate funds more effectively toward long-term student support.
- Reduce administrative burdens associated with financial aid processing.
- The University can use these funds towards staffing, facilities and maintenance services.

A study by the University of Alberta found that students receiving financial literacy training required 35% less emergency aid (UofA GSA, 2023). With Savver’s automated budgeting and savings features, universities can expect a similar reduction in emergency aid requests. Savver will increase student retention and in turn students will have better academic performance, financial stress is a leading cause of student dropout rates. When students struggle to afford tuition, food, and basic needs, they often delay or drop out of programs due to financial hardship. Students tend to experience increased mental health issues, affecting academic performance.

By providing structured financial support through Savver, students can focus on their studies instead of financial survival. Universities that offer financial wellness tools see higher retention rates and improved academic outcomes (Brown et al., 2023).

A dynamic change for the University of Alberta

University stakeholders and leadership are offered a unique approach to solve an old problem which is only mounting. The integration of Savver into the university’s financial system creates a mutually beneficial ecosystem where both students and the institution

gain financial advantages. This dynamic that shows wins on both sides makes this product cutting edge and will genuinely disrupt the way schools see financial burdens of students.

- Students benefit through lower food costs, better budgeting, fewer late fees, and increased tuition savings.
- Students begin to feel secure in their finances and feel the university genuinely cares.
- The university will see sustainable classroom numbers such as dropout rates fall when students have the financial means to study.
- The university benefits through revenue sharing, reduced emergency aid costs, improved student retention, and reduced food bank reliance.
- The university may see more enrolments and improved rankings in student retention and satisfaction as their financial situations improve.

Additionally, this initiative supports the UofA's commitment to student success, positioning it as a leader in financial wellness improvement. With the growing number of graduate students under increasing financial pressure, Savver provides a practical, high-impact solution that aligns with imperative institutional goals.

Savver is an industry disrupting product which is designed to proactively address the financial challenges faced by graduate students at the University of Alberta. The use of predictive analytics will help students avoid disastrous financial holes. Savver is an innovative app with implications of real change to the current archaic university financial system. Savver is shifting the UofA from reactive, short-term solutions to proactive, long-term financial wellness for graduate students. Savver disrupts the way universities deal with student poverty on campus and help students learn to manage funds. Universities have historically not taught life skills such managing your money and household budgets. Savver aims to challenge the learning and thinking of students towards money. Savver is teaching a "man to fish" as the old proverb states.

Unlike outdated support mechanisms that distribute a portion of money at once, Savver functions as an everyday financial guide, ensuring students make smarter spending decisions before they experience hardship. Its AI-driven meal planning alone can reduce costs which is a crucial intervention given the report's findings that rising food prices excessively impact international and PhD students. International students at the University do not receive financial training to understand the cost differences between Canada and their home countries. For example, a Canadian dollar is generally worth more than most

nations in Asia however the buying power and earning power is different. For example, \$1CAD in Canada vs \$1 CAD in India buy different quantities of the same item.

The integration of Savver into the university financial system, with revenue split 50/50 with Bright Learning Labs, represents a financial innovation that not only supports students but also benefits the institution. This model places the UofA in a unique place as they would have access to proprietary technology and would be seen as an industry leader.

By reducing the demand on grant programs and food banks, the university can reallocate resources to more strategic initiatives such as improving overall financial bottom line. Additionally, by increasing retention rates and reducing dropout rates linked to financial distress, the university will yield healthier profits from tuition. Savver supports the university's reputation for student success, positioning it as a leader in proactive financial wellness strategies. The program's AI-driven automation also pointedly reduces administrative burdens on financial aid offices, as fewer students will require urgent financial intervention when they are consistently managing their budgets more effectively. Savver's ability to analyze spending patterns and suggest tailored budgeting solutions ensures that students are not just surviving but are financially thriving, setting them up for success during and after their academic careers. The initiative represents a significant shift toward financial empowerment, helping students avoid costly overdraft fees, late payments, and unnecessary debt accumulation. With 66.5% of survey respondents reporting an annual household income below \$30,000, and many struggling with tuition increases and inflation, Savver becomes an essential tool for navigating financial uncertainty.

This shift from reactive to proactive financial management also aligns with broader institutional goals of fostering a supportive and financially resilient student body, demonstrating that the university is not just providing aid but actively equipping students with the skills and tools to maintain long-term financial independence. Savver is not just a budgeting tool but a financial mentor, continuously learning from students' habits and adapting its recommendations to fit their evolving financial needs. It is a disruptor in the best sense—challenging conventional thinking about student aid and transforming financial support from an afterthought into an integrated, everyday resource. By reducing student reliance on emergency assistance and fostering a culture of financial literacy, Savver sets a new standard for how universities can support their students beyond the classroom. In turn proving that financial stability is a crucial pillar of academic success and not seen as an unconnected issue.

Implementing a new way to financial advising

Savver has no admin fees, Bright Learning Lab (BLL) covers hosting, maintenance, and support costs. Savver proposes hiring 3-5 co-op students for on campus orientation and a certified financial counselor for one-on-one support. Savver will supply the university with monthly anonymized reports on student spending trends for strategic planning and student financial support initiatives. Savver becomes a part of the university ecosystem such as the gymnasium, library or campus counsellor.

Incorporating the Savver app into the current IT structure at the University of Alberta represents an innovative approach to solving critical student financial problems in higher education finance. Savver will handle all the onboarding costs and custom support services after the installation of the app.

Synthesis is a key factor in this new way of doing things as it requires the unification of a new AI tool within existing institutional financial policies and procedures. Savver aims to solve two major problems faced by the University: the declining funding levels from the Alberta government and financial pressures impacting students. These two factors ultimately lead to a major impact on the university's operating budgets which translates to millions of dollars in deficit budgets.

The integration process involved identifying present gaps in existing financial services, aligning them with Savver's capabilities, and developing a seamless system that benefits both students and administrators. This includes ensuring compliance with the provincial and university regulations, data security policies, and ethical financial transparency measures. By synthesizing user needs with technological solutions, this integration process will enhance the student experience while maintaining the university's rankings.

Savver should be integrated at the start of the school term for each new student as this is the best time to be able to help students and equip them for the school year. Savver should be seen the same way all other essential campus services are viewed and used. On campus awareness and frequent reminders beyond the orientation period for this product is vital for lowering attrition rates.

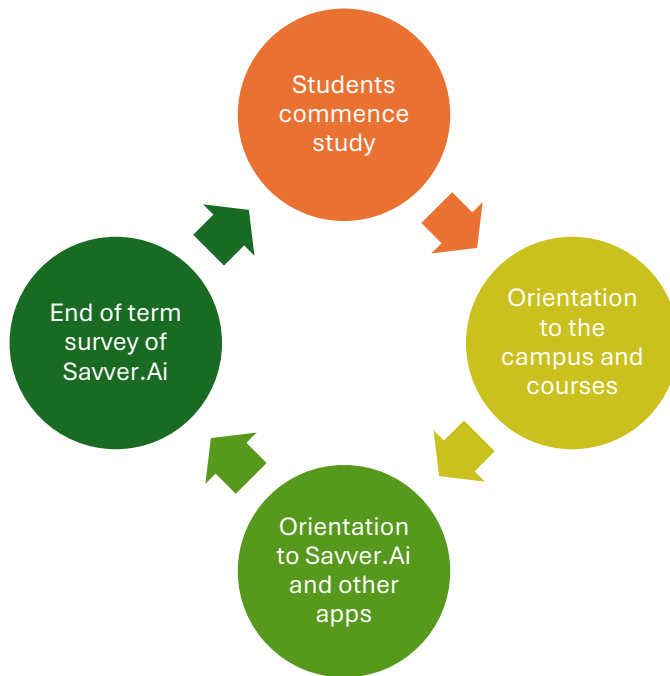


Diagram 1C

This diagram shows how the university would change the structure of student onboarding placing and emphasis on early adoption. Savver would form part of the staple onboarding processes of new and existing students.

University Implementation Plan

The initial steps of implementing Savver into the University would entail having preliminary meetings with university leadership and discuss this technology and the business plan attached as an appendix item. The next steps would be to agree to a cost and have a signed contract in place to begin the implementation process. Integrating Savver.Ai into the University of Alberta's (UofA) student well-being system requires a thoughtful approach that considers both technological and human factors.

1. Initiating the proposal

The initial proposal should present the research showing the financial needs of UofA's student displaying the financial crises and present a detailed proposal. This should outline how Savver AI will address these needs. This will be shared within the UofA with senior leaders.

2. Negotiating and Closing the Deal

This step is about ironing out the terms and conditions. The discussion should include the financials, app roll out timelines, roles, and responsibilities. The profit-sharing model and data privacy provisions should also be explained. The university may need internal approval from UofA's legal department, finance, and IT teams to proceed with the deal.

3. Signing Contracts

This step is about confirming the partnership with legal signatures and agreements, ensuring both parties understand their commitments, contract terminations and rights.

4. Sharing Profits and Performance Metrics

The proposal would define how profits will be shared and establish clear performance metrics to track the success of the integration. It would outline timelines for payments and receivables.

Student Implementation

A potential integration model for student use is the Technology Acceptance Model (TAM), which measures how users come to accept and use technology (Davis, 1989). This researcher feels by employing TAM, the UofA can tactically implement Savver.Ai in a way that aligns with students' needs and preferences, promoting widespread adoption and enhancing overall well-being support services.

The implementation of TAM to Savver.Ai into the UofA for students:

1. Perceived Usefulness

Demonstrate with student reps how Savver.Ai can enhance students' financial well-being by providing personalized recommendations for budgeting, scholarships, and financial planning. Savver would have student reps walking around the campus promoting the product and offering free Savver merchandise.

2. Perceived Ease of Use

This step has been completed through the pilots which has shown the platform is user-friendly, with intuitive interfaces and seamless integration into existing UofA systems to minimize the learning curve. Student reps will do live demos to students to further drive this home.

3. Behavioral Intention

Create positive experiences linked to Savver.Ai through targeted marketing campaigns, workshops, and student testimonials that highlight its benefits, in turn increasing the probability of adoption. Peer-to-peer reviews would be essential. A cooperative approach to managing finances, supported by AI-driven data, can raise a sense of belonging among students. Peer-to-peer learning can lead to better self-confidence and lesser stigma around financial struggles.

4. Actual System Use

Watch usage patterns and gather feedback to continually refine the platform and address any issues that may hamper reliable engagement.

Evaluation plays an equally significant role in this change. Savver will provide a thorough assessment of current student financial challenges, faced by students, as it analyses areas such as tuition payments, budgeting, spendings and financial aid payments. Savver will have metrics such as student engagement levels, financial literacy improvements, and administrative efficiency gains to measure the success of the integration. Evaluating these outcomes will ensure continuous improvement and refinement of services provided through the Savver app. Students should be surveyed at the end of each term to see how much they have saved and how their financial health is fairing.

Further than problem-solving, this initiative extends and redefines professional practice in higher education financial management. By embedding digital financial solutions into university operations, institutions transition from traditional financial aid models to more dynamic, data-driven approaches. This transformation not only benefits students but also enhances the university's ability to make informed policy decisions based on aggregated financial behavior data.

New Markets - Growth

The successful implementation of Savver at the University of Alberta serves as a model for other institutions looking to modernize student financial services. It highlights the importance of integrating FinTech solutions into academic environments and highlights how technology can be leveraged to address critical financial concerns among students. Academia has generally acted in a conservative approach to adopting new ways of educating and provide students with services. Rosenberg (2023) claims that higher education institutions have been slow to implement essential changes despite increasing financial pressures. The University of Alberta is a top fifteen research university in Canada and is seen as an exceptional academic figure in the educational landscape of North

America. The U15 is warmly known as the “Canadian Ivy league” synonymous with prestige and exclusivity. The University of Alberta, being an early adopter of Savver, opens up the market for other colleges and universities to adopt the app. The financial struggles faced by students at this university are not necessarily unique and may be even worse for students in more expensive cities across North America. The University of Alberta wants to be seen as innovative to attract the best and brightest students, Savver should be part of the marketing campaign to help students find a school that will look after both their student life needs as well as their educational wants.

Market Competition

Enriched Academy is a similar product offered at certain select colleges and high schools in Canada however Savver goes much further beyond the simplistic nature of the Enriched Academy product. Savver is focusing on innovation, affordability, and overall comprehensive financial education therefore Savver outperforms Enriched Academy and is predicted to become the market leader in financial literacy training.

Enriched Academy offers online classes to assist students with having a better relationship with money. Savver holds several competitive advantages over Enriched Academy, making it the superior choice for financial education.

1. Innovative learning experience unlike Enriched Academy’s traditional video-based lessons, Savver includes AI-driven personalized learning, interactive simulations, and gamified financial challenges. This makes financial education more engaging and effective.
2. Broader and more advanced course offerings while Enriched Academy focuses mainly on basic personal finance and investing, Savver provides advanced insights into savings and budgeting.
3. Better value and pricing, Savver offers a more flexible pricing model, including affordable monthly subscriptions, premium content, and bulk discounts for educational institutions and corporate clients, making financial literacy accessible to more people.
4. Real-time financial insights and tools Savver integrates AI-driven budgeting tools, stock market simulators, and real-time investment analysis, features that Enriched Academy lacks, providing users with actionable financial insights.

5. Stronger community engagement and support with live mentorship sessions, discussion forums, and responsive customer service, Savver fosters a more interactive and supportive learning environment compared to Enriched Academy's more static approach.

Current and Future market trends

The Rise of AI-Driven Products Among Gen Z Consumers

AI is progressively shaping the preferences and expectations of younger Gen Z customers, who are the most tech-savvy and digitally connected generation to date. Those born between 1997 and 2012, Gen Z have grown up with smartphones, social media apps, and AI-powered applications, making them more receptive to AI-driven products. This generation is accustomed to convenience and efficiency, all of which AI improves in various sectors, involving finance, retail, and healthcare.

AI-driven apps supply Gen Z's who demand a seamless digital experience by offering real-time assistance, automated decision-making, and predictive analytics. AI-powered financial tools such as budgeting apps. Savver will gain momentous traction among young consumers looking for smarter ways to manage their money. Younger consumers embracing such tools features a growing trend where AI is not just a technological advancement but a lifestyle enabler for the younger generation. Younger consumers are accustomed to a world filled with technological advances that occur frequently and provide new products in shorter time frames which companies like Apple and Tesla capitalize on.

How Industries Are Embracing AI Products

Industries across different sectors are embracing AI to augment operations, improve customer experiences, and increase cost-effectiveness. In the finance sector, AI is transforming, especially in fraud detection and personal finance management. Large retailers use AI-driven analytics to enhance customer shopping experiences and automate inventory management. The healthcare industry trusts AI for predictive diagnostics, virtual consultations, and personalized treatment plans.

Smart factories equipped with AI-driven robot automation are minimizing waste and maximizing output. Companies such as Amazon, Walmart and McDonalds are deploying AI robotic arms to replace manual labor and perform unskilled labor, while the agricultural sector uses AI to monitor soil health and optimize crop harvests. The speedy

implementation of AI across industries underlines its boundless potential and the growing need for machine learning to make data-driven decisions.

AI Apps Like Savver and Financial Wellness

AI-powered financial management apps like Savver are transforming personal finance by providing users with intelligent insights and real time suggestions. By observing spending ways, AI is predicting future financial needs and is able to steer customers away from financial issues. Savver helps individuals make informed financial decisions using the machine learning at its finest.

A key benefit of AI-driven budgeting tools is their ability to promote responsible spending practices. Numerous customers fight with excessiveness due to a lack of financial literacy and impulse purchases. AI apps respond to these tendencies by sending timely notifications, sorting expenses, and setting realistic automated savings goals. Users can receive alerts when they are nearing their budget limits, track recurring expenses, and receive customized suggestions on reducing unnecessary expenditures.

When it comes to alleviating financial stress, Savver can progress students' mental health, developing their academic performance and overall well-being. This can create a healthier, more balanced student body with better coping strategies for tasks outside the academic setting.

Additionally, AI apps now can reach a wider range of people who may not have had the ability to access traditional financial counselling and guidance. According to a study by Barron-Lopez in the United States, the average wealth for Caucasian households is nearly eight times higher than that of Black households (Barron-Lopez, 2022). The researcher further goes on to say, a systemic lack of financial education contributes to this wealth inequality, as experts forecast that without improved financial literacy, that gap will only grow. AI apps like Savver, provides financial planning to everyone by making wealth management available to people who may not have the resources for traditional financial advisors. These tools provide personalized strategies based on user behavior and goals, making financial planning more inclusive and effective.

Regulatory operations for Savver.Ai

Regulatory measures are a significant challenge and must be properly followed. Savver operates within the tightly regulated financial industry. FinTech platforms are required to obey to various regulations, such as the General Data Protection Regulation (GDPR) in Europe and various data privacy laws in the U.S. (e.g., the California Consumer Privacy Act,

or CCPA). PIPA (Personal Information Protection Act), which controls the collection, use, and disclosure of personal information by private sector bodies in Canada (Government of Alberta, 2024). The other Canadian law is FOIP (Freedom of Information and Protection of Privacy Act), a law in particular Canadian provinces (e.g., Alberta) that governs access to information held by public bodies and protects individuals' privacy (Government of Alberta, 2024). Both Canadian Acts ensure the responsible handling of personal data and transparency which Savver is subject to adhere by.

Compliance with these laws is indispensable to protect user data and privacy, which can be a complex and costly process for AI-driven platforms (Bradshaw et al., 2021). Additionally, Savver would be subjected to financial regulations designed to ensure consumer protection and fair competition, which requires thorough oversight and could obstruct AI-based innovations.

Savver has a risk mitigation process in place by relying solely on banking data in the form of API's. Banking APIs (Application Programming Interfaces) allow third-party services such as Savver to link securely with the banks' systems to retrieve financial data, process transactions, or provide other services. These APIs are intended to be secure, using encryption protocols like SSL/TLS to protect sensitive data during transmission. Encryption ensures that any financial information exchanged between the bank and Savver are scrambled and unreadable by unauthorized parties, protecting users from potential data breaches and ensuring compliance with privacy laws like GDPR. Savver offers protection up to \$250,000, this refers to coverage provided through FDIC-insured bank accounts or similar protection mechanisms, which ensure that user deposits are safe up to this limit in the event of a bank failure. This type of insurance is intended to protect customers' funds while offering financial security. This amount may be seen as a limitation as wealthier students many have more than \$250,000 in their accounts leaving them unprotected.

AI Bias and Adoption Fear

AI bias presents another challenge for Savver.Ai. AI algorithms rely on data to generate insights and predictions, but if the data used to train these systems is biased or incomplete, the AI could accidentally reinforce existing disparities. For example, if the training data over-represents certain spending behaviors, the AI might recommend financial strategies that are more applicable to those groups, ignoring others (O'Neil, 2016). International students may spend more at the start of term versus the middle of the term, which could lead the model to start off with a high base of calculation projected spending. This is due to moving to a new country, cost of settling into a new home and learning the

local shopping trends. This can be specifically difficult in AI financial management tools, where individuals from diverse backgrounds may rely on AI-driven advice. Ensuring that AI systems are trained on diverse, representative data and are regularly audited for fairness is crucial to preventing these biases. The data would need to look at once off purchases or the initial moving costs as an isolated event and not trigger the learning based on single events. Further to this, there is a growing concern around the learning AI receives, AI is trained and provides solutions based on what it was taught.

According to Joy Buolamwini, facial recognition systems displayed significant biases, particularly against darker-skinned individuals and women. This research study revealed high error rates as great as 34.7% for darker-skinned women, compared to 0.8% for lighter-skinned men, emphasising the discrepancies in AI accuracy across different demographics (Buolamwini, 2018). These findings highlight the need for more inclusive training data and rigorous evaluation processes to mitigate AI bias. According to O’Neil (2016), AI powered systems used in credit scoring may unintentionally disadvantage minority groups or individuals from lower-income backgrounds, leading to unfair access to financial products and services. In order to mitigate AI bias in Savver, it is crucial to use diverse and representative data and regularly audit AI models for fairness. Savver has run two pilot programs with over 400 users in both Canada and the USA, this has helped the AI learn different types of users. However, Savver would become superior when exposed to a larger group of people such as 45,000 users at the University of Alberta.

Currently the world of AI has distinct groups of people, those who embrace AI and those who are skeptical of the technology. Adoption hurdles aren’t usual for AI-driven financial services. One of the key challenges is gaining customer trust. Many users are still skeptical about AI's ability to manage sensitive financial data. This is rooted in media and personal experiences of data breaches. According to Winder (2024), data breaches have affected billions of individuals worldwide, with major incidents exposing personal information across different sectors. Privacy concerns are predominant, as customers are often cautious to give AI platforms their financial information. Furthermore, some users may lack the technical literacy required to fully understand how AI tools work, which can create resistance to adopting new technologies (Shin, 2019). Savver can combat these challenges with transparent communication, reassuring security measures, and user-friendly interfaces that clarify AI for the average customer. Savver would have on the ground student advocates and everyday users showing how the product has benefitted them and taking the fear out of relying on AI. According to the Financial Times (2025), younger, more tech-inclined, and tech educated employees tend to embrace AI tools more willingly, however many others remain skeptical or feel poorly trained to use these technologies to

their full potential. One main concern that was stressed in the article, is the lack of adequate training and support especially true for older workers, which leads to low trust and disengagement of AI innovative tools. Savver, being designed for the Gen Z market and a generation born with tech will have a better adoption rate versus targeting older more conservative users.

Financial Benefits of AI and Sustainability

Training AI models requires a significant number of electrical resources, which in turn demands large amounts of energy. The machine learning development of algorithms allow machines to learn from and make predictions or decisions based on data. This training has a large impact on the environment in the short term however long-term gains can outweigh this. The environmental impression of AI in education can be considerable, especially as the number of AI-based applications and the scale of their implementation increases (Strubell et al., 2019). The UofA would need to carefully consider the ecological costs of running AI systems and explore renewable energy sources or energy-efficient algorithms to alleviate this impact.

Further to helping individuals save money, AI-driven financial apps also contribute to long term broader economic and environmental benefits. Individuals spending less often leads to more sustainable consumption practises. For example, AI-powered budget tracking can highlight excessive spending on fast fashion, prompting users to make more eco-conscious choices. This trend of fast fashion is a large contributor of textile waste in the worlds' landfills, where non-biodegradable fabrics can remain for up to 200 years (World Resources Institute, 2017). In a broader context, AI technology is also helping businesses and governments minimize waste and optimize resource usage. Smart energy management systems powered by AI reduce electricity consumption, while AI-driven logistics improve supply chain efficiency, reducing fuel consumption and emissions. By promoting responsible spending and financial sustainability, AI indirectly contributes to environmental sustainability as well. Savver's meal planning which is discussed earlier in this paper has the capability to tackle food waste.

AI in a Post-COVID World

The COVID-19 pandemic fast-tracked the digital revolution across sectors, increasing reliance on AI for efficiency and adaptability. The rise of remote work, online doctors' appointments and online shopping from Amazon surged during the pandemic, validating AI's ability to simplify operations and enhance delivery of products.

Post-pandemic, AI continues to play an evolving role in reshaping sectors. Businesses are leveraging AI to maintain operational productivity in hybrid work environments, optimize online customer service, and other sectors. AI-driven automation is also addressing labor shortages by reducing dependency on human intervention for repetitive tasks and unskilled labor. The shift towards AI in the post-COVID era means a long-term transformation rather than a temporary solution. The years of 2020-2022 insisted on our dependence on technology and the tools we use to live and work. This revolution of tech made people more comfortable relying on automation to solve daily problems. This comfort level has given rise to more and more products pushing the envelope. Innovation is essential for long-term strength and recovery, particularly in times of crisis, as it enables organizations to adjust and thrive in changing situations (Furstenthal, Hirt & Roth, 2021).

Alongside the tech revolution, the post-COVID world has seen worrying trends of high interest rates, soaring food costs and historically high costs of all consumer goods. Inflation rates have surged globally in the aftermath of COVID-19 due to disrupted supply chains, labor shortages, and increased government spending. The rising cost of living, higher interest rates, and wage stagnation have put financial strain on customers, predominantly younger generations with limited financial security.

AI-driven financial tools have emerged as essential solutions for individuals struggling to manage expenses amid inflation. Budgeting apps, investment platforms, and AI-powered lending services provide data-driven recommendations to navigate economic uncertainty. Populations around the world are focussed on identifying cost-saving prospects and offering personalized financial strategies, AI empowers users to mitigate the impact of inflation and make informed financial choices. Our reliance on AI has opened us to seek out it's help during these challenging times like we did during the COVID-19 pandemic.

Conclusion

In 2025, AI is transforming consumer behavior, enhancing business efficiency, and addressing financial challenges in a post-pandemic world. As AI continues to evolve, its role in financial well-being and sustainability will only flourish, making it a vital tool for individuals and industries equally. The existing approach to student finances does not use modern financial technologies to provide bespoke, data-driven help. AI-driven platforms like Savver offer real-time financial management tools, automated budgeting, and predictive analytics to help students proactively manage their finances rather than relying solely on one-time grants or last-minute emergency funding. The university should move toward a real-time, needs-based funding approach, the university could ensure financial

aid reaches students when they need it most, reducing financial stress while optimizing the use of institutional resources. A technology-integrated model would not only be more cost-effective but also provide superior financial security for students in an increasingly variable world economic climate.

References

- AI and Ethics (2023). The technology triad: disruptive AI, regulatory gaps and ethical challenges. *AI and Ethics*, 3(2), 123-135. <https://doi.org/10.1007/s43681-023-00305-5>
- Barrón-López, L. (2022) 'How racial disparities in financial education affect America's wealth gap', *PBS NewsHour*, 20 June. Available at: <https://www.pbs.org/newshour/show/how-racial-disparities-in-financial-education-affect-americas-wealth-gap> (Accessed: 15 February 2025).
- Buolamwini, J., 2018. *Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification*. [online] Available at: <https://www.media.mit.edu/publications/gender-shades-intersectional-accuracy-disparities-in-commercial-gender-classification/> [Accessed 7 March 2025]
- Business Insider (2025) 'Here's how AWS is helping financial giants like JPMorgan and Bridgewater with their AI ambitions'. *Business Insider*, 2 February. Available at: <https://www.businessinsider.com/aws-wall-street-jpmorgan-bridgewater-mufg-rocket-mortgage-2025-2> (Accessed: 4 March 2025).
- Bradshaw, S., Millard, C., & Walden, I. (2021). *Regulating AI: The Ethical and Legal Challenges*. Oxford University Press.
- Brynjolfsson, E., Rock, D., & Syverson, C. (2018). Artificial Intelligence and the Modern Productivity Paradox: A Clash of Expectations and Statistics. In *The Economics of Artificial Intelligence: An Agenda* (pp. 23-57). University of Chicago Press.
- Christensen, C.M. (1997) *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, MA: Harvard Business School Press.
- Chen, Y., Zhang, L., & Wang, J. (2023). The Role of Artificial Intelligence in Financial Technology: Opportunities and Challenges. *Applied Sciences*, 13(2), 340. <https://doi.org/10.3390/app13020340>
- Davis, F.D., 1989. *Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology*. *MIS Quarterly*, 13(3), pp.319–340.
- Discover Global Network (2023) 'Cashless payment trends on higher education campuses'. *Discover Global Network*. Available at: <https://insights.discoverglobalnetwork.com/insights/cashless-payment-trends-on-higher-education-campuses> (Accessed: 3 March 2025).
- Electronics (2023). Artificial Intelligence as a Disruptive Technology—A Systematic Review. *Electronics*, 12(5), 1102. <https://doi.org/10.3390/electronics12051102>
- Educause (2021). *The Cost of IT in Higher Education: Annual Report*. Available at: www.educause.edu [Accessed 6 Feb. 2025].

Furstenthal, L., Hirt, M. & Roth, E. (2021). *Innovation: Your launchpad out of the COVID-19 crisis*. McKinsey & Company. Available at: <https://www.mckinsey.com> [Accessed 14 Feb. 2025].

Government of Alberta, 2024. *Personal Information Protection Act (PIPA)*. [online] Available at: <https://www.alberta.ca/personal-information-protection-act.aspx> [Accessed 6 March 2025].

Hu, X., Huang, Y., Li, B., & Lu, T. (2023) 'Inclusive FinTech Lending via Contrastive Learning and Domain Adaptation', *arXiv preprint arXiv:2305.05827*. Available at: <https://arxiv.org/abs/2305.05827> (Accessed: 4 March 2025).

Jones, M. (2023). "University Budgeting and IT Spending: Challenges in Higher Education." *Journal of Higher Education Finance*, 45(2), pp. 112-130.

MagicSchool (2025) 'Lesson Plan Generator', *MagicSchool AI*. Available at: <https://www.magicschool.ai/tools/lesson-plan-generator> (Accessed: 6 March 2025).

National Democratic Institute. (n.d.). *Sample size: A rough guide*. Retrieved from <https://www.ndi.org/sites/default/files/samplesizecalculation.pdf>

O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. Crown Publishing Group.

Pryor, G. (2023) 'The digital classroom: How FinTech is shaping modern education'. *Gary Pryor Scholarship*. Available at: <https://garypryorscholarship.com/the-digital-classroom-how-fintech-is-shaping-modern-education> (Accessed: 4 March 2025).

Rosenberg, B. (2023) 'Higher education's resistance to change', *Harvard Graduate School of Education*, 14 November. Available at: <https://www.gse.harvard.edu/ideas/edcast/23/11/higher-educations-resistance-change> (Accessed: 20 February 2025).

Savver (n.d.) *Savver: AI-driven financial solutions for students*, Available at: <https://savver.ai/> (Accessed: 6, 10, 12 14, 26 Feb 2025).

Search Logistics, 2025. *U.S. Scholarship Statistics: The Latest Data, Facts And Costs*. [online] Available at: <https://www.searchlogistics.com/learn/statistics/scholarship-statistics/> [Accessed 7 March 2025].

ScholarSnapp, 2024. *ScholarSnapp: Scholarship Matching Platform*. [online] Available at: <https://www.scholarsnapp.org> [Accessed 5 March 2025].

Shin, L. (2019). *Trust in AI: How the Technology Will Reshape Consumer Markets*. Cambridge University Press.

Smith, R. & Brown, L. (2022). "Balancing Costs and Innovation in University IT Systems." *International Journal of Educational Technology*, 38(4), pp. 56-72.

SSRN (2023). The Impact of Artificial Intelligence on Business: Opportunities and Challenges. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4407114

Strubell, E., Ganesh, A., and McCallum, A., 2019. *Energy and Policy Considerations for Deep Learning in NLP*. Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics, pp.3645-3650.

TD Bank Group (2023) *Three-quarters of former Canadian students believe current students face more financial challenges than previous generations, new TD survey reveals*. Available at: <https://td.mediaroom.com/2023-08-29-Three-quarters-of-former-Canadian-students-believe-current-students-face-more-financial-challenges-than-previous-generations%2C-new-TD-survey-reveals> (Accessed: 3 March 2025).

TD Bank Group (2024a) *Nearly half of Canadian students are unable to adequately cover basic needs such as food and housing, TD Survey*. Available at: <https://td.mediaroom.com/2024-08-27-Nearly-half-of-Canadian-students-are-unable-to-adequately-cover-basic-needs-such-as-food-and-housing%2C-TD-Survey> (Accessed: 3 March 2025).

University of Alberta (2023). *Annual Financial Report 2023*. Available at: www.ualberta.ca [Accessed 6 Feb. 2025].

University of Alberta GSA (2025). *Graduate Students' Association – University of Alberta*. Available at: <https://gsa-ualberta.ca/> [Accessed 6,10,12,14, 17,21 Feb. 2025].

Winder, D., 2024. *Warning As 26 Billion Records Leak: Dropbox, LinkedIn, Twitter Named*. [online] Available at: <https://www.forbes.com/sites/daveywinder/2024/01/23/warning-as-26-billion-records-leak-dropbox-linkedin-twitter-named/> [Accessed 6 March 2025].

World Resources Institute (WRI) (2017) 'The environmental cost of clothes.' Available at: <https://www.wri.org> (Accessed: 18 Feb 2025).

Bright Learning

L A B

UNIVERSITY OF ALBERTA 

Savver Business Plan Proposal

Executive Summary



PREPARED BY
Dillon Kearl

PREPARED FOR
Melissa Padfield

Bright Learning Lab proposes partnering with the University of Alberta to save students thousands annually through their Savver platform, while creating a new income stream for the university and unlocking valuable insights into student financial behaviors.

Savver, leverages advanced AI to offer personalized financial guidance, enabling students to manage their finances effectively without additional effort. During pilot studies, users saved an average of \$500 per month, translating to \$2,000 in savings per semester. This initiative not only benefits students but also creates opportunities for UofA to enhance financial literacy and retention rates among its student body.

Bright Learning Lab (BLL), a subsidiary of H10 AI, brings extensive expertise in delivering innovative solutions as an approved AI vendor for the federal government. Focused on supporting student success, BLL is actively acquiring and developing a comprehensive suite of products. Its flagship product, Empower™, is already utilized by several prestigious post-secondary institutions. Recognizing the growing need for student financial support, BLL has partnered with Zane Financial to create Savver, a groundbreaking tool designed to address this critical challenge.

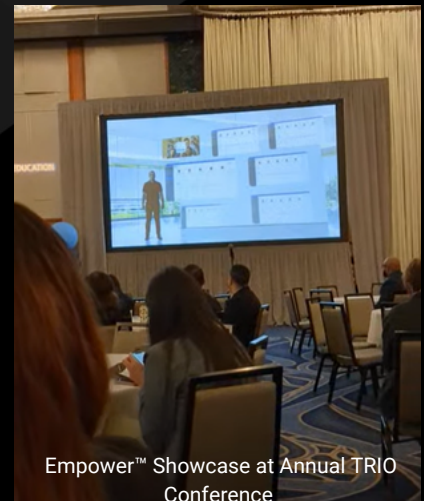
This proposal outlines the value to the University of Alberta and provides a ground to start negotiations.

Partners Involved



BRIGHT LEARNING LAB

Bright Learning Lab (BLL), a subsidiary of H10 AI, is dedicated to building and acquiring innovative products that drive student success. Their flagship offering, Empower™, is a software platform tailored for TRIO programs, which have supported underrepresented students in the U.S. for over 50 years with strong bipartisan support. Empower™ was Developed by the Council for Opportunity in Education, the national leader in advancing TRIO. They have partnered with BLL to enhance and distribute Empower™. Notable clients include the University of Maryland, Southeastern Louisiana University, The City University of New York, Michigan Tech, and Wichita State University.



RIGHT INC.

Right Inc., trade name Zane, is a Financial Technology company founded by Albertans Dr. Pavel Bondarev, former Director of Data Science and Analytics at RBC, and Antapreet Singh, a former Full Stack Developer at ATB. Over the past three years, the founders and their team have been diligently developing the Savver platform. Right Inc. adheres to all banking and financial regulations, including PII standards, enabling seamless integration with Third-Party Risk Management (TPRM) processes and the compliant use of a banking license.

Product

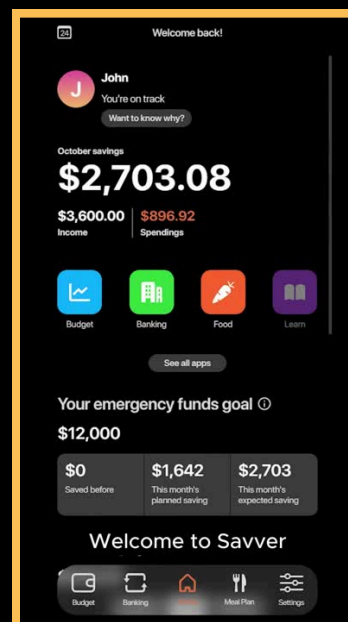
> Students Save with Savver

Savver is an AI-driven personal finance solution designed to empower students by simplifying their financial management and helping them achieve greater financial stability. The platform aggregates all financial data into one central location, analyzing a user's spending habits to predict their future financial position. By understanding individual patterns, Savver creates custom, AI-built budgets and provides real-time, personalized notifications to support better financial decisions. Savver is not just a budgeting app; it acts as a proactive financial assistant. For instance, it can alert a user that they've spent \$80 on coffee in a week and suggest brewing coffee at home to save money.

> The Numbers

Savver has the potential to deliver significant financial benefits to students at the University of Alberta. During pilot programs, users saved an average of **\$500 per month** by utilizing the app's personalized financial insights and budgeting tools. With a student population of 44,000, the total savings could amount to an astounding **\$264,000,000** annually.

[DEMO VIDEO - CLICK HERE](#)



Security & Liability

> Data Security

Savver is built with industry-leading security protocols to ensure the utmost safety and privacy for its users. Key measures include:

- **Data Anonymization:** All user data is anonymized, preventing any connection between personal information and aggregated data.
- **Encryption Standards:** Data is encrypted using AES-256, the gold standard for securing sensitive information. All data transmissions occur over HTTPS with TLS encryption, ensuring secure communication.
- **Compliance:** Savver adheres to stringent regulations, including PII, GDPR, and California privacy laws, as well as third-party risk management requirements to comply with banking standards.
- **Data Handling:** No personal identifiable information (PII) is stored or shared. Users connect to their bank accounts through licensed third-party providers, ensuring that Savver only accesses anonymized data.
- **Infrastructure Security:** Hosted on Google Cloud Platform, Savver utilizes multiple levels of encryption and security protocols that meet ISO 27001 and SOC-2 certification standards.
- **Third-Party Risk Management:** All third-party providers undergo rigorous assessments to ensure compliance with governmental and banking regulations.
- **User-Centric Data Access:** Users have full control over their data, which is managed through advanced tools without direct intervention from Savver.

> Liability

Bright Learning Lab is committed to assuming 100% liability for Savver, ensuring the University of Alberta is entirely protected from any legal, financial, or operational risks associated with the app. This includes:

- **Data Security:** Any potential breach or issue related to the app's functionality or security will be the sole responsibility of Bright Learning Lab.
- **Compliance Assurance:** Bright Learning Lab guarantees full compliance with all relevant data protection and privacy regulations, eliminating any regulatory risk for the university.
- **Operational Reliability:** All operational aspects, from hosting to user support, will be managed and insured by Bright Learning Lab.
- **Contractual Protection:** A legally binding agreement will explicitly outline that UofA bears zero liability, providing additional peace of mind.
- advanced tools without direct intervention from Savver.

Proposed Partnership



The proposed partnership between Bright Learning Lab and the University of Alberta introduces UofA's Savver powered by Zane Financial, ensuring the app is branded to align with UofA's identity while transparently showcasing the involvement of a trusted third party. This collaboration enables the UofA to offer Savver to students as a cost-effective financial management tool, charging between \$62.50 to \$112.50+ per semester. With pilot users saving an average of \$500 per month—equivalent to \$2,000 per semester—the cost of Savver is minimal compared to the potential financial benefits for students. Bright Learning Lab will receive 60% of the revenue; however, if 25% of students do not become active users of the app, Bright Learning Lab will return 1/6th of its share, creating an even 50/50 revenue split. The UofA can integrate this fee seamlessly into essential non-instructional or financial fees, ensuring accessibility and affordability for students while enhancing their financial well-being. Bright Learning Lab suggests an agreement between 3–5 years.

Revenue Per Semester – Scenarios (Assuming 44K Students)

Students stand to Save \$2000+ per semester!!!

Price Per Semester	Total Revenue	Revenue for UofA
\$62.50	\$2.75M	\$1.1–1.375M
Price Per Semester	Total Revenue	Revenue for UofA
\$87.50	\$3.85M	\$1.54–1.925M
Price Per Semester	Total Revenue	Revenue for UofA
\$112.50	\$4.95M	\$1.98–2.475M
Price Per Semester	Total Revenue	Revenue for UofA
\$137.50	\$6.05M	\$2.42–3.025M

Pricing is in line with Enriched Academy which many schools offer to their students—Enriched is a platform with 10 learning modules to teach students about personal finances. WHAT STUDENT WANTS TO DO MORE STUDYING???

Additional Details

No Admin Fees

The partnership with Bright Learning Lab ensures that the University of Alberta will not incur any administrative fees related to implementing or maintaining Savver. Bright Learning Lab will cover all costs associated with hosting, operation, and support of the app, including any updates or technical maintenance required.

Usable Data

Bright Learning Lab will provide the University of Alberta with monthly data reports based on the aggregation of anonymized user data from Savver. This data is fully anonymized to ensure privacy, with no personal identifiable information (PII) collected or shared. The reports will offer valuable insights to help with strategic decision making.

Student Advocates and On-Campus Financial Counselor

To drive engagement and maximize student adoption of Savver, Bright Learning Lab (BLL) will hire three to five co-op students to support with marketing and promotion. These advocates will focus on promoting Savver across campus by educating their peers about its benefits through workshops, events, and peer-led discussions, as well as assisting with onboarding to ensure a seamless user experience.

In addition to the advocates, BLL will hire a Certified Financial Counselor to serve as an additional resource for students who need financial guidance and support. With a focus on empathy and compassion, the counselor will provide one-on-one assistance to help students navigate financial challenges. Acting solely in the students' best interest and without promoting or selling financial products, the counselor will create a safe and supportive environment for those seeking extra help.

BLL proposes renting an office space at the University of Alberta as a dedicated location for the Financial Counselor. This central hub will ensure accessibility for students while reinforcing Savver's role as a trusted and comprehensive financial resource on campus.

Data Report

➤ Monthly Report

Bright Learning Lab will provide the University of Alberta with monthly aggregated data reports derived from anonymized user activity on Savver. These reports will offer valuable insights such as:

- All dollars spent on campus
- Student spending habits
- Student spending preferences and locations
- Average savings
- Average debt levels
- Peak spending times

Importantly, no personal identifiable information (PII) is collected or shared, ensuring full compliance with privacy regulations while providing actionable insights to help enhance student success and financial well-being. This data could be used to shape grants and bursaries.

Next Steps

To move forward with the partnership, the following steps are required:

1. Agreement on Structure: Collaboratively determine key elements such as the selling price, revenue-sharing model, contract length, and any additional terms related to implementation and operations.
2. Formal Contract Development: Once the structure is agreed upon, Bright Learning Lab' legal team will draft a formal contract outlining all terms, responsibilities, and expectations for both parties.

BLL is open to negotiation to ensure the agreement aligns with the University of Alberta's needs and priorities. The Bright Learning Lab team looks forward to finalizing these details and embarking on a partnership that brings significant value to UofA students and the university community.



Graduate Students' Association
University of Alberta

Understanding Financial Realities: An Analysis of the Financial Condition among UofA Graduate Students

August 30, 2023 Results

780-492-2175
www.ualberta.ca/graduate-students-association
1-49 Triffo Hall, University of Alberta, Edmonton, AB, T6G 2E1



Graduate Students' Association

University of Alberta

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Executive Summary

The "Understanding Financial Realities" report, initiated by the Graduate Students' Association (GSA), sheds light on the pressing concerns consistently raised about how the cost of living negatively impacts the academic pursuits of graduate students at the University of Alberta (UofA). Recent findings from our in-depth analysis, have provided us with eye-opening insights and deeper understanding of these challenges, painting a clearer picture of the financial realities our graduate students currently face.

It's particularly concerning that over 40% of respondents have contemplated leaving their programs due to financial pressures, a figure that is significantly 10% higher than the national average reported in the [2021 National Graduate Student Finance Survey](#) by the Ottawa Science Policy Network.

Our findings echo the narrative from the U of A Campus Food Bank, highlighting an increased reliance on food bank services. Disturbingly, over 30% of our survey participants rely on them. Additionally, a staggering 60% of respondents are grappling with housing costs that exceed the city's average. This financial strain has a pronounced effect on international students and PhD candidates, who not only struggle to afford life in the city but also face a heightened risk of discontinuing their studies.

The escalating expenses related to groceries, housing, and accumulated student debt urgently require our attention. They directly impede student achievements and starkly contrast with the affordability and transparency ideals upheld by both the GSA and the [Student Experience Action Plan \(SEAP\)](#).

At the GSA, we're deeply committed, alongside the University of Alberta, to promoting graduate student success. It's alarming to see students facing financial hardships to the extent that they rely on food banks, cut back on nutrition, limit housing expenses, or even consider abandoning their studies. This financial pressure isn't just an academic concern—it directly impacts mental and physical well-being. As emphasized by the [Financial Consumer Agency of Canada](#), financial stress doubles the likelihood of poor health, leading to increased sleep issues and other health concerns.

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A. Introduction

Graduate studies represent a pivotal phase in a student's academic journey, setting the course for their future. Yet, the path to advanced degrees can often be overshadowed by financial challenges, affecting both the well-being and academic accomplishments of graduate students. To delve deeper into these challenges and to understand how students manage their finances in today's landscape, the Graduate Students' Association (GSA) at the University of Alberta conducted the "Understanding Financial Realities" survey.

B. Methodology

The GSA's "Understanding Financial Realities" survey was active for three weeks, spanning from August 14 to August 30, 2023. To ensure maximum participation, we primarily distributed the online survey link through our weekly GSA newsletters and further amplified its reach with a special bulletin on August 20, 2023.

We were pleased to receive 640 responses, offering a comprehensive and diverse representation of graduate students at the University of Alberta. This encompassed a wide range of demographics, reflecting various socioeconomic backgrounds, household compositions, residence statuses, and more.

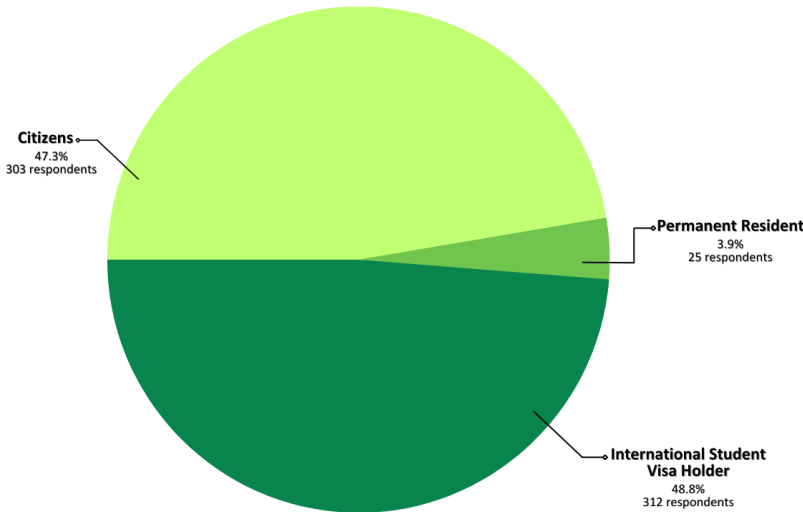
To incentivize participation, respondents had the option to enter a raffle for one of three food retailer coupons by sharing their email addresses. Aside from this, the survey remained entirely anonymous.



C. Demographic Profile

Status

640 Respondents

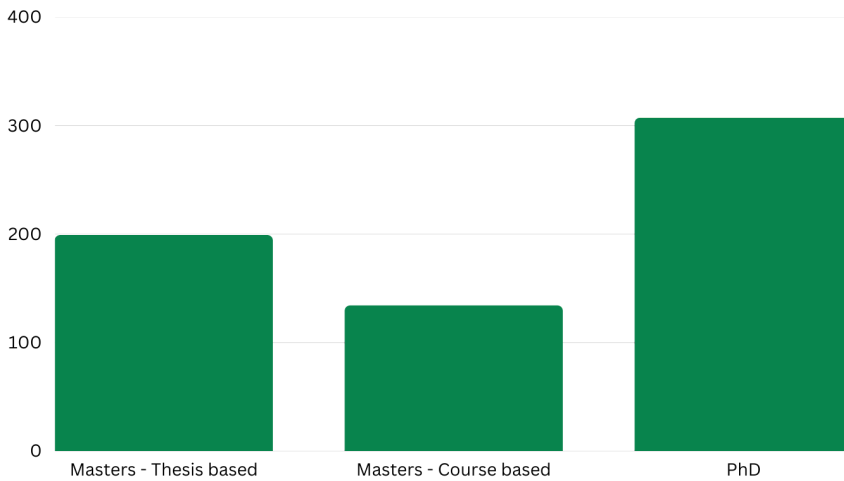


Among the survey participants, it can be observed that 312 individuals held International Student Visas, closely followed by 303 Canadian citizens. Additionally, 25 respondents identified themselves as permanent residents.

Figure 1: Demographic Profile of Respondents based on Residency Status

Degree

640 Respondents



307 out of the 635 were currently completing their Doctoral degree, 133 were taking a Course-based Masters and 199 were completing a Thesis-based Masters.

Figure 2: Demographic Profile of Respondents based on Current Program/Degree

Household Size

640 Respondents

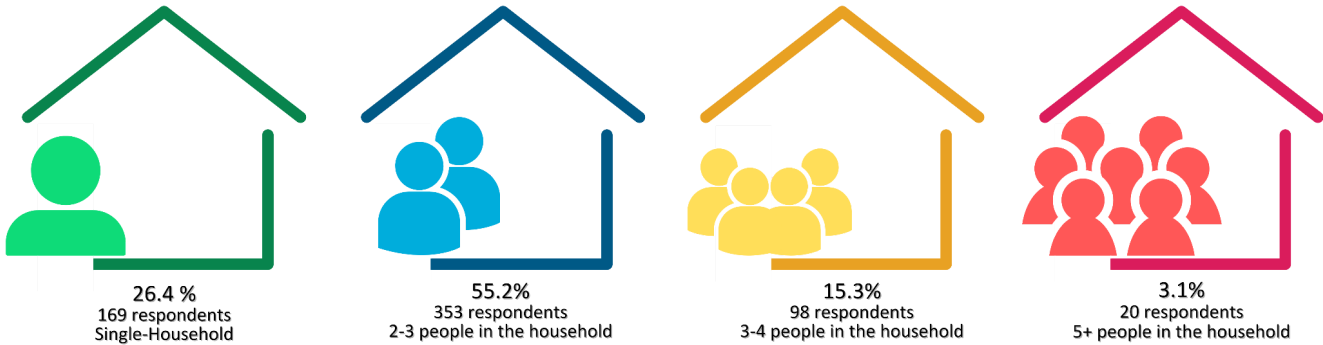


Figure 3: Demographic Profile of Respondents based on Household Size

In relation to household composition, 353 respondents reported living with 1 to 2 individuals in their households. Among them, 169 resided in single-person households, 98 in households with 3 to 4 occupants, and 20 in households consisting of 5 or more individuals.

Dependents at Home

640 Respondents

Based on previous knowledge that a significant number of graduate students are parents, we were intrigued by the relatively low number of respondents indicating they had dependents. The data revealed that the majority of respondents, comprising 81.3% (n=520), reported having no dependents, while only 18.7% (n=120) of survey participants disclosed having one or more dependents. This finding underscores an interesting aspect of the respondent demographics.

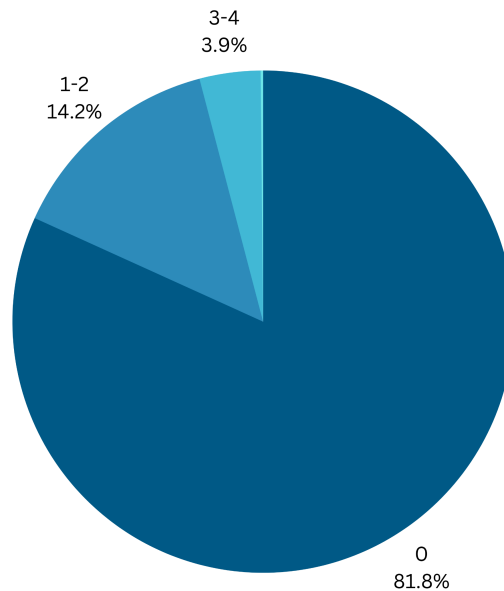


Figure 4: Demographic Profile of Respondents based on No. of Dependents



Average Household Income (Annual)

640 Respondents

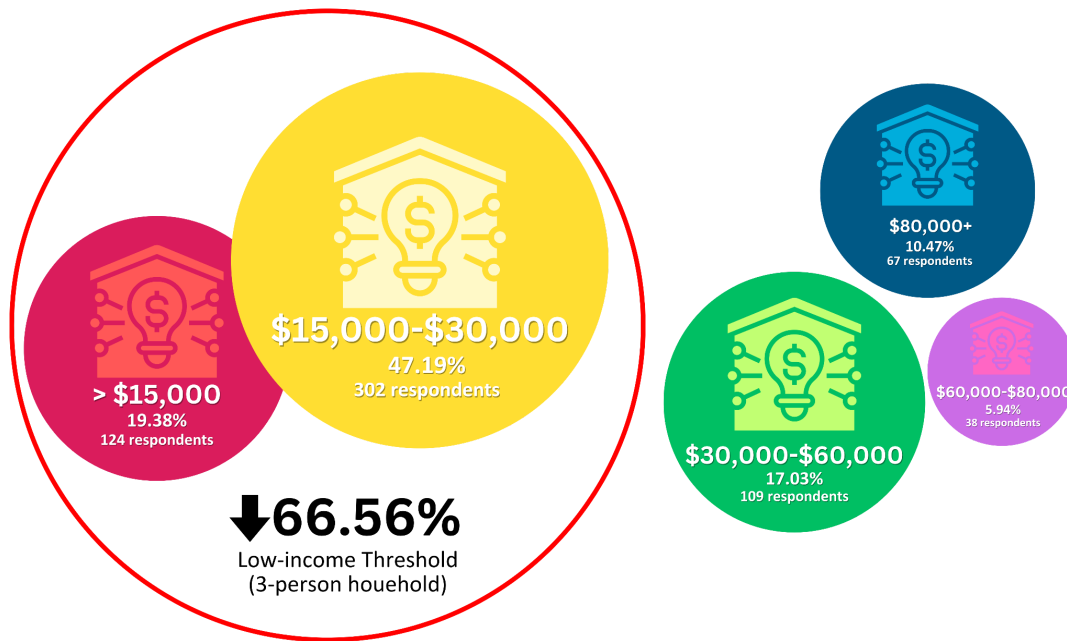


Figure 5: Demographic Profile of Respondents based on Annual Average Household Income

A total of 426 individuals, making up 66.56% of respondents, reported having an Annual Average Household Income (AAHI) below \$30,000. According to [Statistics Canada](#), this income level is below the low-income threshold for a household consisting of two individuals, set at \$27,000. Additionally, 109 respondents indicated an AAHI ranging between \$30,000 and \$60,000, while 38 respondents disclosed an AAHI falling within the \$60,000-\$80,000 range, and 67 respondents reported an AAHI exceeding \$80,000.



D. Lifestyle and Financial Background

The survey results also provided insight into the lifestyle and financial background of the respondents. By examining these, we are able to gain a better understanding of their choices and priorities in managing their finances.

Housing Cost (Monthly)

640 Respondents

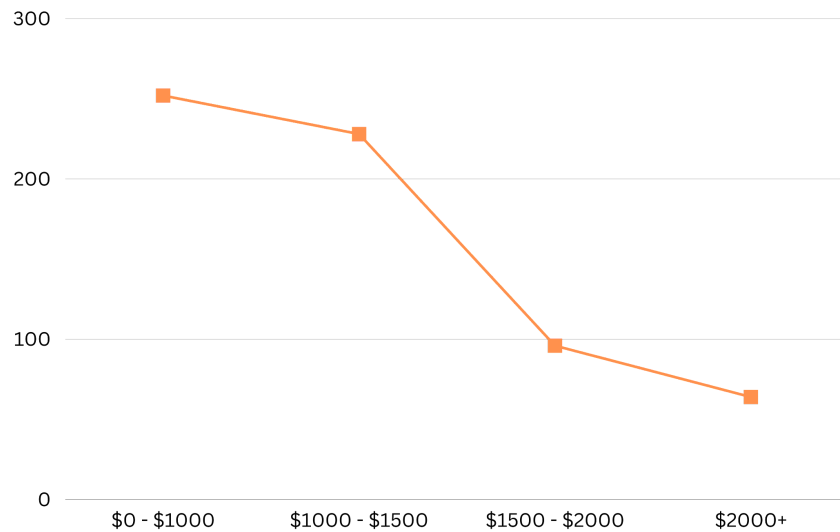


Figure 6: Distribution of Respondents based on their Monthly Housing Cost

When asked about monthly housing costs, it was revealed that 252 respondents spent less than \$1,000, 228 spent \$1,000-\$1,500, 96 spent \$1,500-\$2,000, and 64 spent over \$2,000, highlighting significant variations in housing expenditures among the surveyed population.

According to a 2023 survey report by [Canada Mortgage and Housing Corporation](#) (CMHC), the average rent for a 2-bedroom apartment in Edmonton has increased by 1.6% from 2021, with the recent rate standing at approximately \$1,304. The data underscores a significant housing affordability issue that is possibly confronting students not just in Edmonton, but across Canada as well.



Utility Cost (Monthly)

640 Respondents

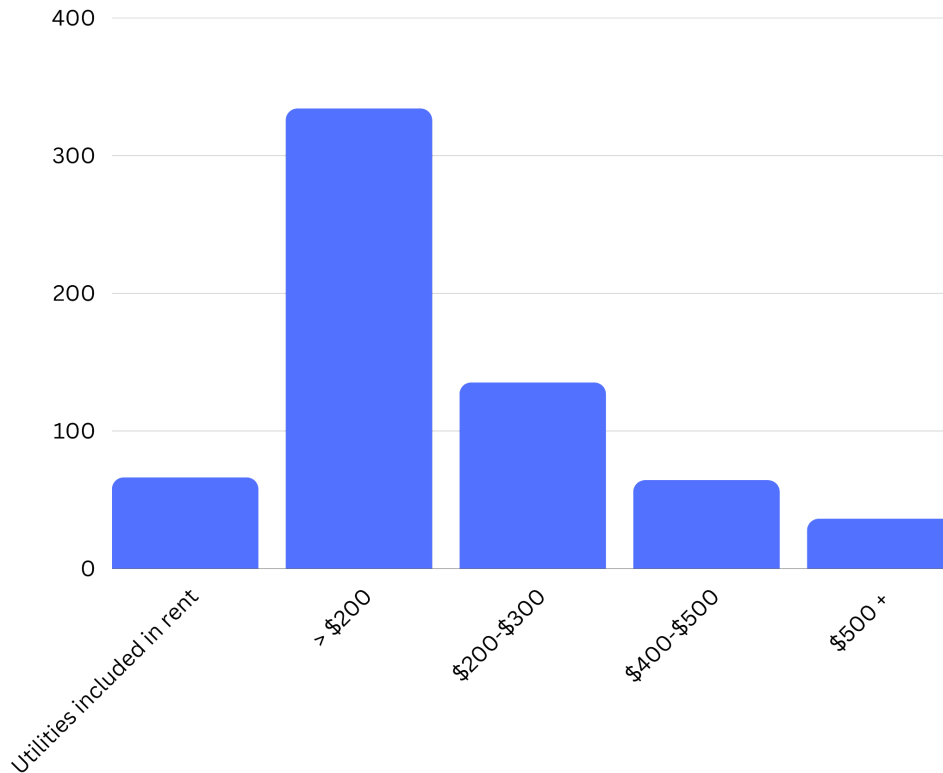


Figure 7: Distribution of Respondents based on Monthly Utility Cost Average

The bar chart illustrates monthly utility cost (excluding rent) among respondents. The majority of respondents (334 respondents) spend less than \$200 a month, followed by 136 in the \$200-\$300 range. Notably, 67 have utilities included in rent, while fewer respondents spend over \$400. The chart provides a snapshot of utility spending patterns in our survey.



Average Cost for Groceries (Monthly)

640 Respondents

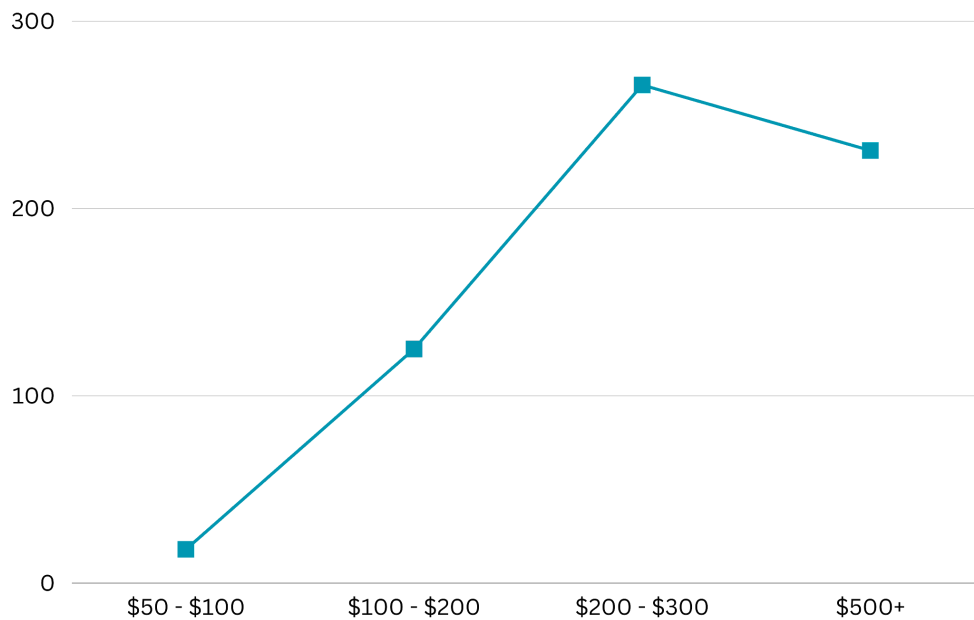


Figure 8: Distribution of Respondents based on Monthly Groceries Cost Average

266 respondents spent \$200-\$300 on monthly groceries, 231 spent more than \$500, 125 spent \$100-200, while 18 respondents said they only spent \$50-\$100.

Data from [Statistics Canada](https://www150.statcan.gc.ca/n1/pub/25-000002023001-eng.htm) show that despite having the prices of groceries go down by 0.4% in August 2023 (vs July 2023), prices remain elevated.



Average Transportation Cost

Optional - 525 Respondents

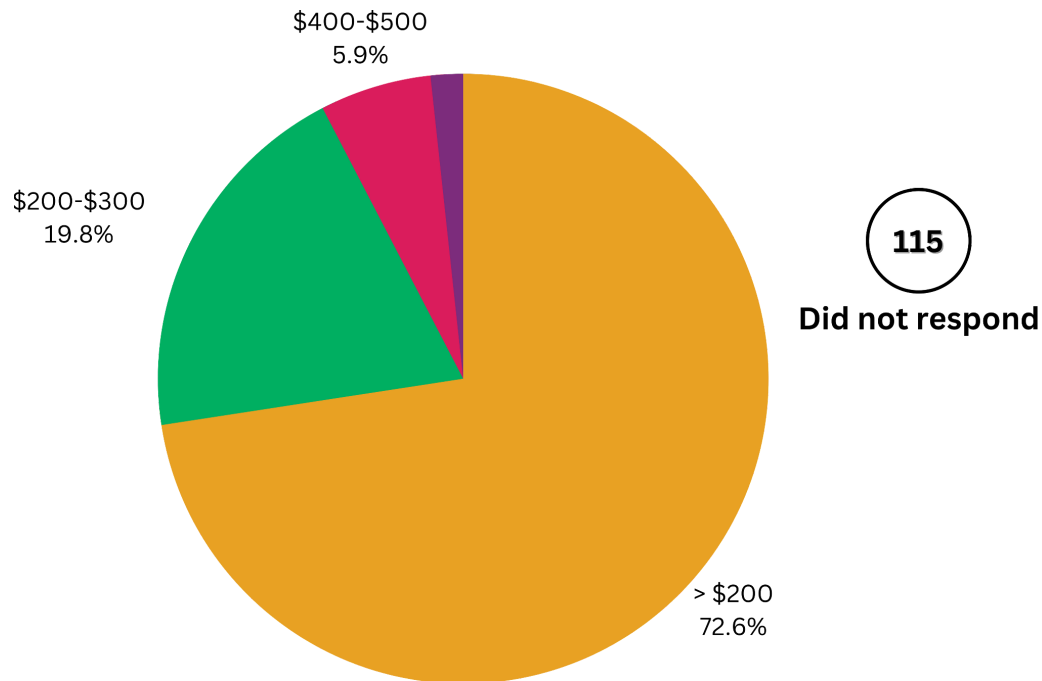


Figure 9: Distribution of Respondents based on Average Transportation Cost

Regarding average monthly transportation expenses, the survey revealed that 381 respondents spend under \$200, 104 allocate \$200-\$300, 31 fall within \$400-\$500, and 9 exceed \$500. It's noteworthy that 93 didn't respond.



Average Personal or Household Debt

Optional - 473 Respondents



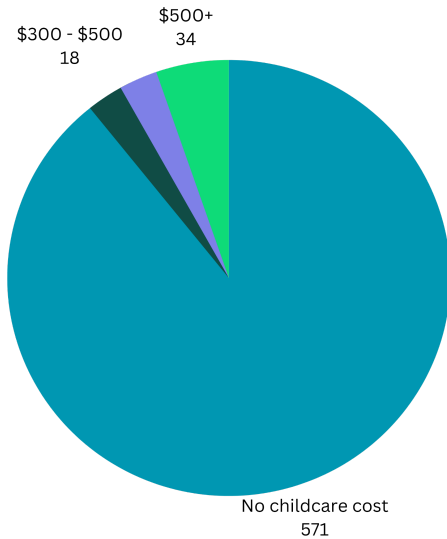
Figure 10: Distribution of Respondents based on Personal/Household Debt

Out of the surveyed participants who did answer, 236 reported an average personal/household debt exceeding \$5,000. Another 168 indicated debts between \$500 - \$1,000, while 35 and 34 respondents fell within the \$2,000-\$3,000 and \$1,000-\$2,000 ranges, respectively.



Average Childcare Cost

640 Respondents

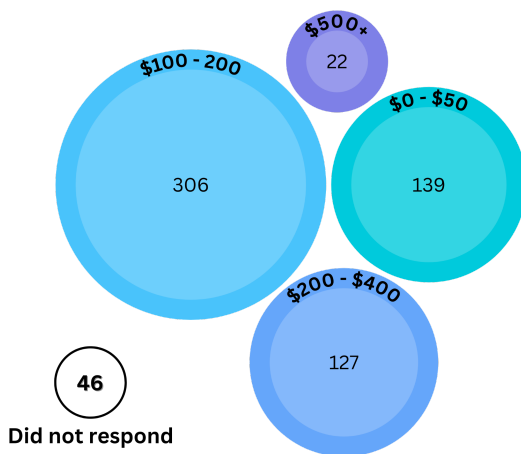


As previously mentioned, the GSA recognizes that a significant number of graduate students are parents. 10.9% (n=69) reported spending over \$200 on childcare, while a vast majority, 89.1% (n=566), indicated they had no childcare expenses.

Figure 11: Distribution of Respondents based on Average Childcare Cost

Cost for Leisure and Lifestyle

Optional- 594 Respondents



In response to the question on approximate leisure and lifestyle expenditures (e.g., restaurants, movies, online subscriptions, recreation), the data revealed: 139 spend \$0-\$50; 306 allocate \$100-\$200; 127 earmark \$200-\$400; 22 spend over \$500; and 46 offered no response.

Figure 12: Distribution of Respondents based on Average Leisure and Lifestyle Cost

Financial Support

640 Respondents

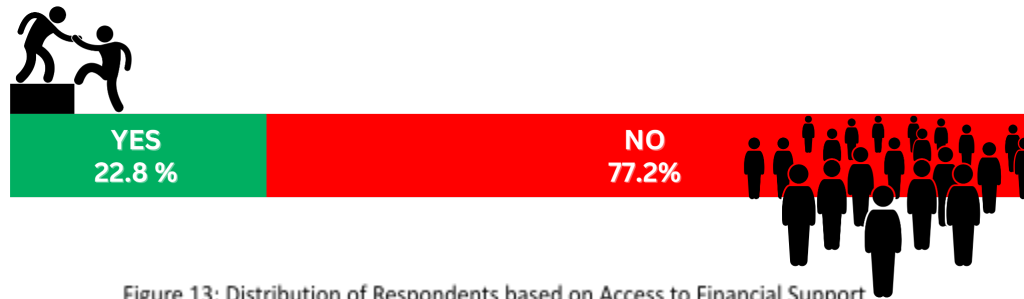


Figure 13: Distribution of Respondents based on Access to Financial Support

Out of the respondents, 494 stated they did not receive financial support from friends or family, while 146 confirmed they did.

Food Bank Usage

640 Respondents



Figure 14: Distribution of Respondents based on Usage of Food Banks

Of the 640 respondents surveyed about their use of food banks, 216 confirmed they are seeking food bank services, while 424 had not. Of the affirmative responses, 200 identified the specific food banks they've accessed.

The majority, with **over 190 respondents**, relied on the **U of A Campus Food Bank**. A smaller group, fewer than 10, sought assistance from alternative sources such as the Edmonton Food Bank, religious-affiliated food banks, or food banks at other universities. The remaining 16 did not specifically identify where they get their food bank services from.

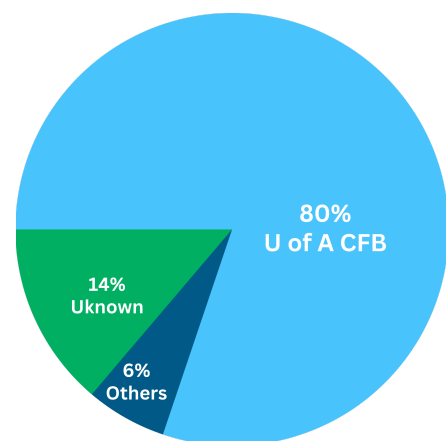


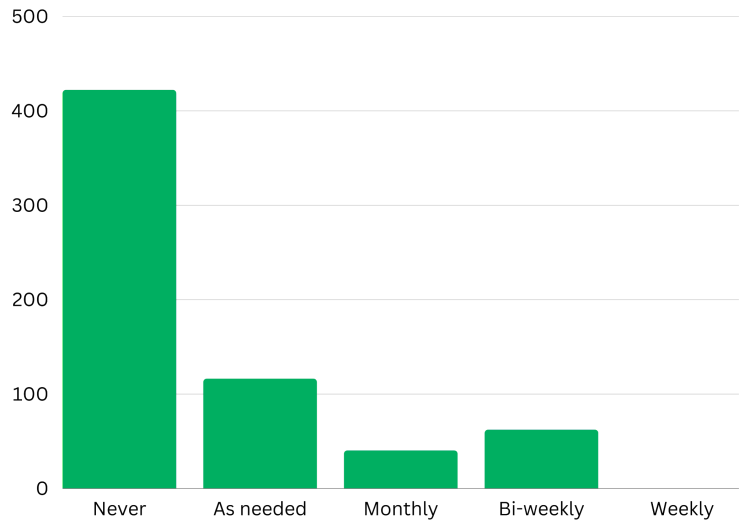
Figure 15: Breakdown of Food Bank Services Accessed by Students



Frequency of Food Bank Access

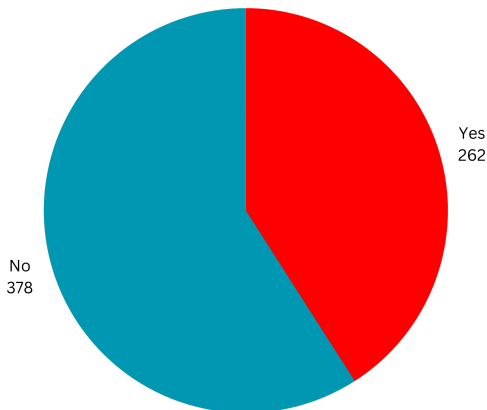
640 Respondents

Out of the respondents, 422 reported that they have never used food bank services. However, among the 216 respondents who provided details on their frequency of food bank usage, 116 access it only when necessary, 40 utilize the service monthly, and 62 visit bi-weekly.



Consideration of Dropping Due to Financial Reasons

640 Respondents



A staggering 40.9% of respondents have revealed that they have thought about dropping out of their programs to work or save money due to the cost of living.

Figure 17: Distribution of Respondents based on Tendency to Drop Out



E. Analyzing Variable Interrelationship

The chi-square test of independence (also known as the chi-square test for association) is a statistical test used to examine if two categorical variables in a contingency table have a significant connection.

If the calculated value is less than or equal to the critical value, or if the p-value is less than the chosen alpha level ($p = 0.05$), there is enough evidence to conclude that there is an association between the two categorical variables. But if the value is greater than the alpha level, there's not enough evidence to suggest an association based on the data and the chosen significance level.

Specific to this report, we will be combining the following: Citizens and permanent residents – to be referred to as “domestic students”; PhD VS Masters (Course-based and Thesis-based).

Only variables that have significant association are included in this section.



Status x Debt Level

RESIDENCY STATUS	DEBT LEVEL					Row Total
	Did not answer	\$500-\$1000	\$1000-\$2000	\$2000-\$3000	\$5000+	
Domestic Students	64 (38.3%)	54 (32.1%)	9 (25.7%)	15 (44.1%)	186 (78.8%)	328
International Students	103 (61.7%)	114 (67.9%)	26 (74.3%)	19 (55.9%)	50 (21.2%)	312
Column Total	167	168	35	34	236	640

Figure 18: Contingency Table (Residency Status x Personal/Household Debt)

Our analysis of the student debt based on students' residency status showed that Domestic Students are approximately 6.86x more likely to incur debts over \$5000 than International Students. Furthermore, the odds of having debt in general are 2x higher for Domestic Students compared to International Students.

Domestic and international graduate students' financial experiences in Canada can vary greatly, notably in terms of tuition prices, financial assistance sources, and subsequent student debt.

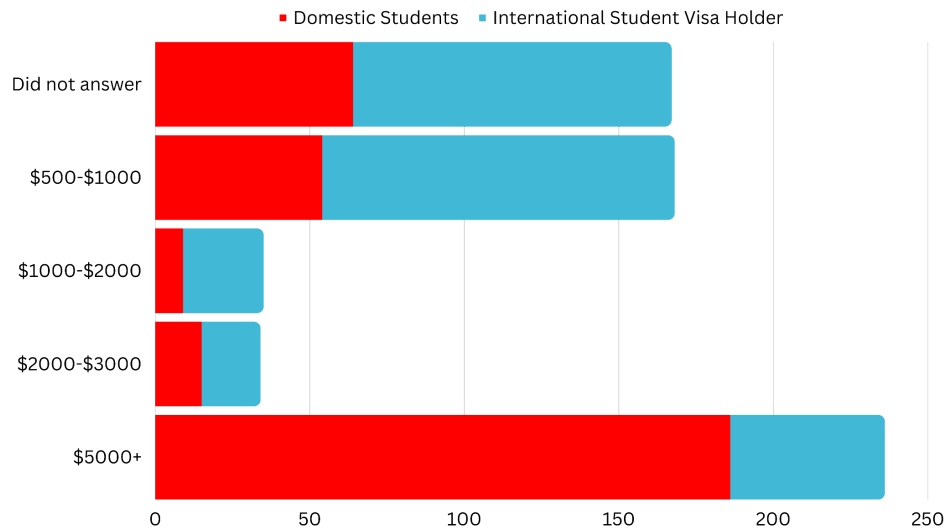


Figure 19: Comparative Stacked Bar Graph of Debt Levels by Residency Status



While the survey showed that domestic students might be more inclined to assume higher debt, there are several reasons that could explain these discrepancies.

- International students coming to Canada have to prove they have sufficient funds to cover tuition and living costs to get their visas. However, this doesn't mean they won't face money problems later. With the rising cost of living, limited work opportunities due to their status, or struggle with high international student fees, international students can often find themselves in a tight financial spot.
- International students often arrive in Canada without a local credit history, which is crucial for securing loans. This lack of credit history typically disqualifies them from accessing most provincial and federal government loans, which are commonly available to domestic students. Consequently, international students may seek loans from private providers, although such options are often limited and might carry less favorable terms.

A study from the [Canadian Science Publishing](#) corroborates these assertions, indicating that international students and members of historically underrepresented communities face heightened financial challenges compared to their domestic counterparts.

One reason domestic students might accumulate higher debt could be their familiarity with various education funding options. These students typically have easier access to and understanding of the process for securing government student loans as compared to international students.



Status x Food Bank Usage

RESIDENCY STATUS	FOOD BANK USAGE		Row Total
	YES	NO	
Domestic Students	44 (20.4%)	284 (70%)	328
International Student	172 (79.6%)	140 (30%)	312
Column Total	216	424	640 (100%)

Figure 20: Contingency Table (Residency Status x Food Bank Usage)

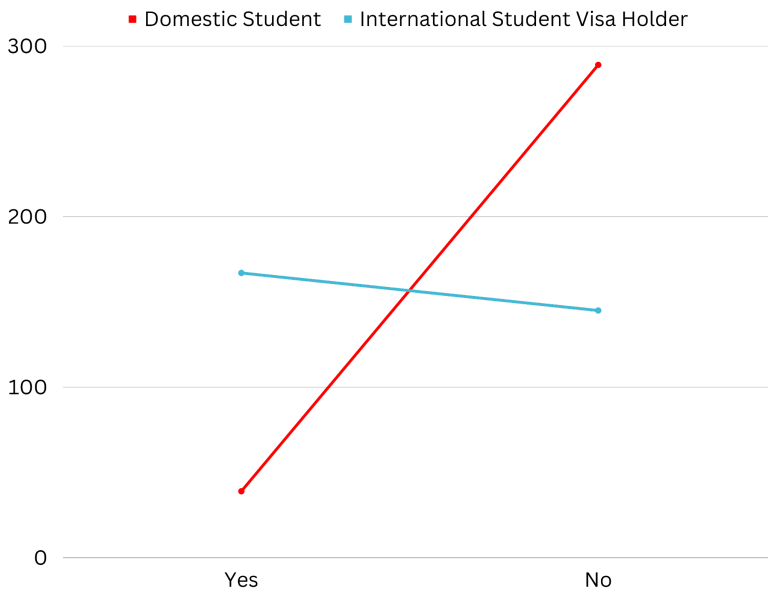


Figure 21: Depicting Trends in Food Bank Usage by Residency Status

Based on the calculations, the odds of international students using food banks are approximately 8x higher than that of domestic students. This significant difference suggests a strong association between student residency status and reliance on food banks.

A study conducted by the [University of Alberta's Campus Food Bank](#) found that 7 out of 10 users are international

students, and most of them are studying for graduate degrees. One reason could be that many international students don't have family nearby to help them when money is tight.

Moreover, consistent reports from [New Canadian Media](#) s, reflecting observations across various Canadian universities, underscore the prevalence of food insecurity predominantly among international students. This evidence highlights the persistence of significant financial challenges experienced by international students.



Status x Housing Cost

RESIDENCY STATUS	MONTHLY HOUSING COST				Row Total
	\$0 - \$1000	\$1000 - \$1500	\$1500 - \$2000	\$2000+	
Domestic Students	96 (38.1%)	112 (49.1%)	68 (70.8%)	52(81.3%)	328
International Student	156 (61.9%)	116 (50.9%)	28 (29.2%)	12(18.8%)	312
Column Total	252	228	96	64	640 (100%)

Figure 22: Contingency Table (Residency Status x Housing Cost)

Based on the calculations, international students are more likely to fall into the lower housing cost categories than domestic students to incur higher housing costs.

Results show that International Student Visa Holders are more likely to look for cheaper housing as compared to domestic students. Some reasons we see why this happens is because given the higher tuition fees for international students and potential exchange rate issues, they might budget more conservatively for housing.

In addition, a [study on housing challenges faced by postgraduates](#) in universities in Toronto showed that international students are more likely to live in shared accommodations or experience predatory practices from landlords just to cut costs for housing.



Housing Cost x Tendency to Drop Out

MONTHLY HOUSING COST	TENDENCY TO DROP OUT		Row Total
	YES	NO	
\$0 - \$1000	93 (35.5%)	159(42.06%)	252
\$1000 - \$1500	88 (33.59%)	140 (37.04%)	228
\$1500 - \$2000	46(17.56%)	50(13.23%)	96
\$2000+	35(13.36%)	29(7.67%)	64
TOTAL	262	378	640

Figure 23: Contingency Table (Housing Cost x Tendency to Drop Out)

The results suggest a positive association between the amount spent on housing and the likelihood of considering dropping out, with higher housing costs linked to a greater tendency to think about discontinuing studies. Students spending over \$2000 show the highest likelihood of contemplating dropping out.

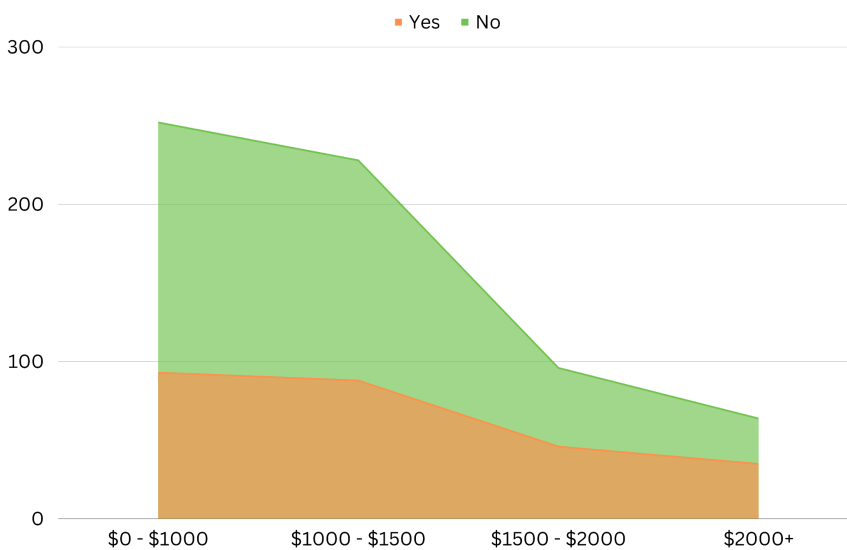


Figure 24: Stacked Area Chart on Dropout Tendencies Based on Average Monthly Housing Costs

With rising housing costs, respondents spending more than \$1,500 are more likely to consider dropping out of their programs. Given the prevailing [housing crisis impacting university students](#), a primary factor behind such considerations is the financial strain from the nationwide housing challenges. This stress might drive students to

prioritize full-time employment over continuing their studies.



Program x Tendency to Drop Out

Program	Tendency to Drop Out		Row Total
	Yes	No	
PhD	139 (53.1%)	168 (44.4%)	307
Masters	123 (46.9%)	210 (55.6%)	333
Column Total	262	378	640 (100%)

Figure 25: Contingency Table (Current Program x Tendency to Drop Out)

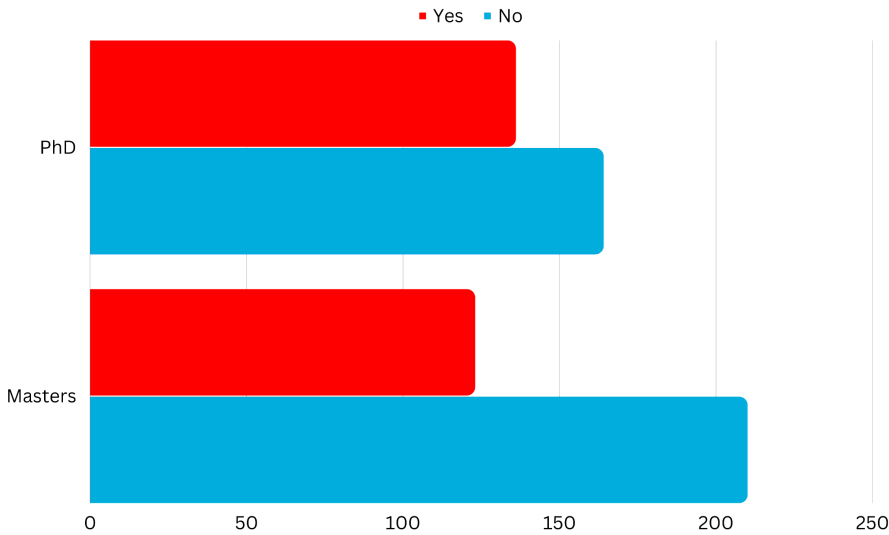


Figure 26: Row Chart on Dropout Tendencies by Current Graduate Program

The results suggest that PhD students are 1.41x more likely considering dropping out compared to Master’s students. Factors contributing to this include the longer duration of PhD programs which means extended tuition and associated expenses. Additionally, the rigorous research demands, particularly during the dissertation stage, coupled with current financial strains from rising tuition

fees and inflation, further intensify the pressure. In situations with limited or depleted funding, students may also be more inclined to discontinue their studies.



F. Qualitative Responses

Responses collected from the survey are collectively summarized due to similarities in overall responses. Natural language processing machine learning (ML) model was used to analyse these free text responses.

Based on the survey, 90.7% of the respondents have had a range of effects on the respondents' cost of living, from modest adjustments to substantial challenges:

“ In addition to my part time job, I've had to start doing side hustles such as tutoring, plasma donation, etc.”

Impact on Groceries and Dietary Habits: Respondents mentioned that the increased tuition costs have impacted their ability to afford groceries. Some are buying fewer groceries due to the rising costs, leading to changes in dietary habits such as reduced meat consumption, reliance on sales, resorting to donated food, and use of food banks.

Housing Challenges: The increased tuition costs have exacerbated existing burdens on students, especially those already facing increased rent and living expenses. Some have been compelled to search for cheaper accommodations due to the lack of a stipend increase.

Financial Assistance and Loans: Respondents are resorting to various financial strategies to cope with the increased costs. This includes borrowing from relatives, seeking bank loans, and applying for more student loans. Additionally, some are working additional jobs to meet their monthly expenditures.

Impact on International Students: International students are particularly affected due to their limited earnings and the higher burden of living costs. The increased tuition further compounds their financial challenges.

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Strict Budgeting and Lifestyle Changes: Respondents are experiencing difficulty in budgeting and managing expenses. Some mentioned that they are becoming more stringent in handling their income and savings in order to cope with rising prices.

“Skipped meals, restrictions on entertainment, general reduction in quality of life (consideration of self-harm)”

Health and Well-being: Affording essentials such as medical treatment and childcare has become difficult for some. There's a notable impact on mental health, with stress resulting from not being able to afford extracurricular activities and leisure.

Academic Impact: The financial strain has impacted academic pursuits and quality of life. The increased tuition costs are leading to difficult decisions for some respondents, such as the dilemma of choosing between finishing their degree sooner, taking on part-time work to delay graduation due to financial constraints, or dropping out of their programs.

Additional analysis was done on the students' comments to gain more insights based on educational qualifications, student status in Canada, degree types, and an emotional and psychological analysis using the Linguistic Inquiry and Word Count (LIWC) method.

Based on Degrees : The word cloud provides a visual representation of the frequency of words used by students enrolled in Ph.D., Masters - Course based, and Masters- Thesis based.

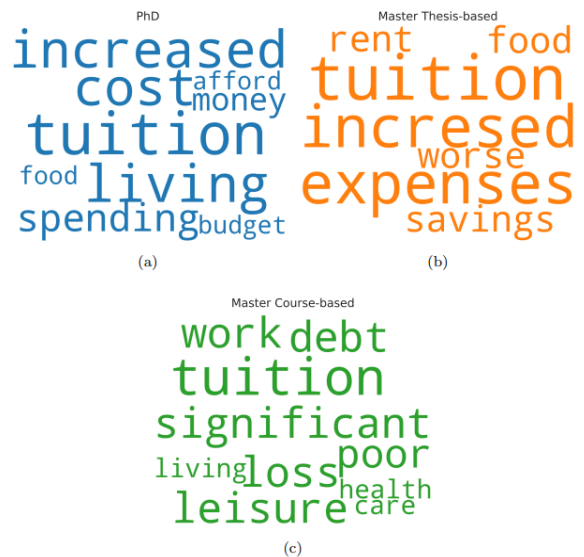


Figure 27: Word Cloud based on Current Degrees



Based on Citizenship Status: Next is the word cloud that represents the different topics highlighted by the resident students, whereas Figure 29 displays a word cloud that represents the different topics highlighted by the international students in Canada

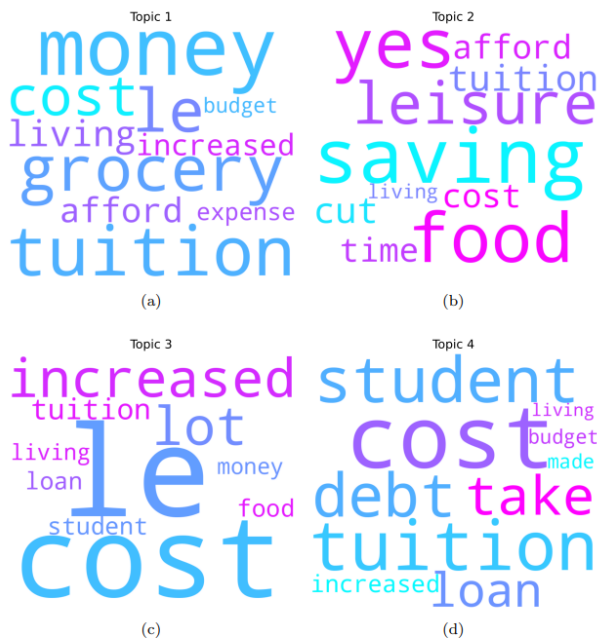


Figure 28: Word Cloud for Domestic Students in Canada

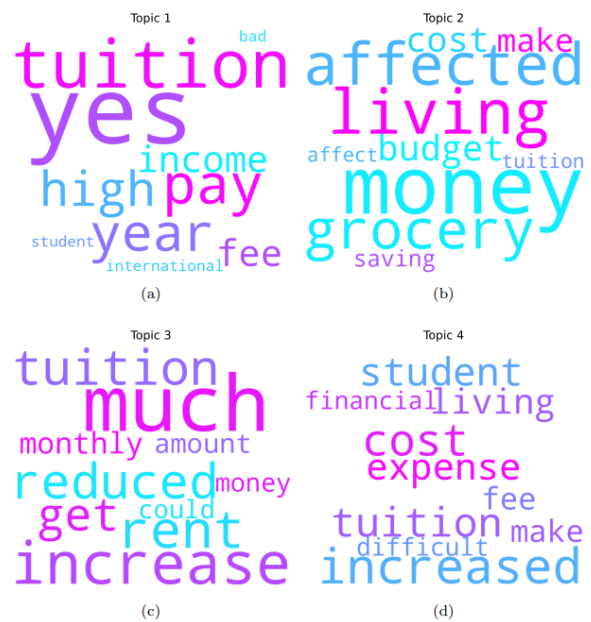


Figure 29: Word Cloud for International Students in Canada

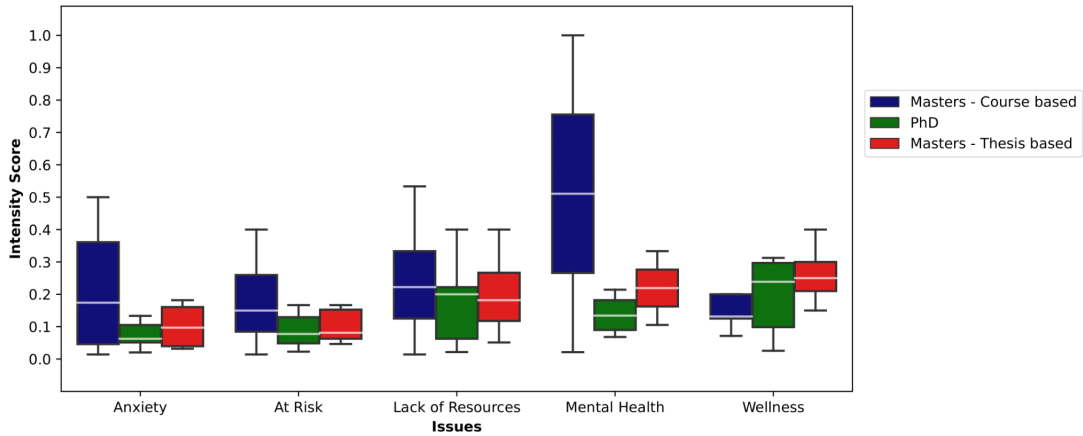


Figure 30: Emotional and Psychological Analysis

“I worked up until the day before I gave birth to try and make ends meet. It is a major source of stress for me and my family. It’s not just tuition that has increased, but work doesn’t pay more.”

Emotional and Psychological Analysis: The LIWC analysis vividly highlights the profound impact of rising tuition costs on students. Not only does it strain their cost of living, but it also significantly influences their mental well-being, elevating levels of anxiety and impeding their ability to afford essential resources. This psychological impact appears to be more significant in the master's-course based cohort of students.

A small proportion of students (9.3%) reported a minimal impact of increased tuition fees on their overall cost of living, with some not perceiving any immediate effect or not noticing the increase. This group primarily consists of first-year students who might not be able to accurately assess the financial impact at this early stage of their studies.

Pressured But Manageable: Other respondents mention experiencing some pressure due to the increased tuition costs but still being able to manage their cost of living. This indicates a moderate impact on their finances. Some feel that the tuition increase was manageable for them this year.



G. Summary

In summary, tuition fees and living costs are climbing, presenting significant challenges for the students in our survey. Most students are trying different financial strategies to handle these growing costs. Although a small group is managing okay, most are facing daily financial pressures, with students in Masters course-based programs feeling particularly anxious.

The inflation in Canada over the past year was 6.8%, and it's expected to rise by an additional 3.9% in 2023 ([IMF, 2023](#)). This price increase is a main reason why students' average spending per month is going up, especially when you compare what they spend in 2023 to what they spent in 2022. The higher prices are impacting everything from the cost of groceries and housing to tuition fees, leading to an increase in students' monthly spending.

At the same time, the growing housing crisis is making students' financial situations even worse. Even though more international students are expected to come to Canada for their studies, there are no solid plans in place to help them find affordable housing. The GSA does not support limiting the number of international students and suggests finding different solutions that won't limit opportunities for these students in the future.